FORUM

on Corrections Research

June 2006, Volume 18, Number 1

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FORUM ON CORRECTIONS RESEARCH is published two times a year in both English and French for the staff and management of the Correctional Service of Canada and the international corrections community.

FORUM reviews applied research related to corrections policy, programming and management issues. It also features original articles contributed by staff of the Correctional Service of Canada and other international researchers and practitioners.

FORUM is prepared and published by the Research Branch of the Correctional Service of Canada.

FORUM invites contributions to any section of the magazine from researchers in the field. Please send your contributions to:

Director General — Research Branch
Correctional Service of Canada
340 Laurier Avenue West
Ottawa, Ontario, Canada K1A 0P9

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Canada Post
Publication mail agreement no.
1454455

Editor:	Larry Motiuk
Assistant Editor:	John-Patrick Moore
Text Editor:	Tanya Nouwens Gurberg
Typesetting and Layout:	Computer Composition of Canada, Inc.
Printing:	National Printers

Sections of the magazine with no acknowledgement of authorship have been researched and written by the staff of the Research Branch, Correctional Service of Canada.

June 2006, Volume 18, Number 1

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Coming together on substance abuse is a beginning, staying the course is progress, and working together is a success[1]

Michel Perron[2] **and** ***Beth Pieterson***[3]
Canadian Centre on Substance Abuse and Health Canada

No part of Canadian society is untouched by the harms that can result from problematic use of alcohol and other drugs and substances. The human toll is unquantifiable, and the health, social and economic costs considerable – 23 billion dollars a year, in fact, according to a recent report by the Canadian Centre on Substance Abuse called The Costs of Substance Abuse in Canada 2002.[4]

Addressing the myriad issues resulting from problematic substance use is a shared responsibility and, for perhaps the first time, all sectors are rising to the challenge and joining together as partners to develop a National Framework for Action to Reduce the Harms Associated with Alcohol and Other Drugs and Substances in Canada. The partnership includes Aboriginal organizations; non-governmental organizations; industry; all levels of government; addictions, policing and enforcement agencies; and other communities of interest, including academia, legal associations, advocacy and human rights organizations, the medical community, caregivers, those who use drugs, and many others.

At a national forum held in Montreal in June 2005, a broadly representative group of stakeholders agreed on the underpinnings of the National Framework for Action, including a vision statement, principles, goals and priorities. Health Canada and the Canadian Centre on Substance Abuse were co-sponsors of an extensive national consultation process that had paved the way for this Montreal meeting. Now, they are working with the National Framework partners to seek endorsement of the Framework by their respective ministers, boards and governing bodies. As well, partner organizations are being asked to identify areas and issues within the Framework where they may want to play a more active role or assume leadership. A longer-term governance model spelling out roles and responsibilities within the Framework is expected to emerge following a meeting in early 2007.

Background

In 2001 and 2002, we heard a series of clear and compelling messages about the need for a more co-ordinated approach to substance abuse in Canada. Three pivotal reports emanating from the Office of the Auditor General (2001),[5] the Special Senate Committee on Illicit Drugs (2002),[6] and the Parliamentary Committee on Non-Medical Use of Drugs (2002)[7] each made a strong case for greater federal leadership and some kind of well-articulated national plan of action to address issues of problematic substance use. We did not have long to wait for the federal response: with the renewal of Canada's Drug Strategy (CDS) in May 2003 came the promise of $16.4 million over five years for leadership and related activities as part of a total CDS commitment of $245 million.

The process

In April 2004, Health Canada, its CDS partners (Public Safety and Emergency Preparedness Canada, the Department of Justice Canada and Foreign Affairs Canada) and the Canadian Centre on Substance Abuse (CCSA) embarked on a broad, multi-stakeholder consultation process to gauge support for developing a national plan of action. Cross-Canada roundtable meetings began in May 2004 and involved a total of 450 stakeholders. Meetings were held in Fredericton, with representatives from all four Atlantic provinces; Toronto; Winnipeg, with Manitoba and Saskatchewan participants; Edmonton; Vancouver; Whitehorse, with representatives from the Yukon and Northwest Territories; and Iqaluit. Two additional roundtables were held in Ottawa, one for representatives of national non-governmental organizations and one for federal partners.

The consultations provided an opportunity to begin discussing and exploring key elements for a framework, including:

- a vision, principles and goals for national action;
- strategic priorities and directions that could allow for coherent planning, delivery and evaluation of activities;

- roles, responsibilities and accountabilities of jurisdictions and other stakeholders;
- mechanisms to ensure co-ordination and facilitate collaboration and partnerships among jurisdictions and sectors; and
- the kind of environment within which funding could be leveraged.

A number of key issues consistently emerged during the consultations, and these became the subject of a separate series of (ongoing) thematic workshops aimed at establishing a current base of knowledge for the Framework. Experts gathered to identify priorities and to make recommendations in the areas of alcohol policy, youth, policing and enforcement, corrections and offender populations, addictions workforce development, Fetal Alcohol Spectrum Disorder, and research.

Reaching consensus

General consensus on all key aspects of the National Framework was reached at the national forum in Montreal in June 2005. A broadly representative group of 100 stakeholders worked diligently to arrive at wording that all partners could agree on. The Framework is described in a document called "Answering the Call."[8] It contains the following vision statement: "All people in Canada live in a society free of the harms associated with alcohol and other drugs and substances."

The document also identifies nine principles that underpin the Framework, including the view that "problematic substance use is a health issue," that "human rights are respected," that "those most affected are meaningfully involved," that "action is knowledge-based, evidence-informed and evaluated for results," and that "reducing the harms associated with alcohol and other drugs and substances creates healthier, safer communities." Other principles relate to accountability and partnerships and the critical role of health promotion, prevention, treatment, enforcement and harm reduction in successful responses to problematic substance use.

The Framework identifies two overarching goals:

1. To create supportive environments that promote health and resiliency of individuals, families and communities in order to prevent problematic use of alcohol and other drugs and substances; and
2. To reduce the harms associated with alcohol and other drugs and substances to individuals, families and communities across Canada.

The Framework targets 13 priorities in three broad categories:

1. To address specific issues;
2. To build supportive infrastructure; and
3. To address the needs of key populations.

Specific issues include increasing awareness and understanding of problematic substance use; reducing alcohol-related harms; addressing Fetal Alcohol Spectrum Disorder; preventing the problematic use of pharmaceuticals; and addressing enforcement issues.

Infrastructure priorities deal with sustaining workforce development; implementing a national research agenda and facilitating knowledge transfer; improving the quality, accessibility and range of options to treat harmful substance use including substance use disorders; and modernizing legal, regulatory and policy frameworks.

Priorities to address the needs of key populations include focusing on children and youth; reaching out to Canada's North; supporting First Nations, Inuit and Métis communities in addressing their needs; and responding to offender-related issues.

Looking ahead

Validation of the National Framework in Montreal set a new phase in motion. For the 2005-2006 fiscal year, CCSA and Health Canada will continue to act as an informal secretariat, managing and assisting Framework partners to seek organizational endorsement of the Framework, to identify and participate in ongoing thematic workshops that address specific priority issues in the Framework, and to identify areas where partners may wish to become more active or take a leadership role.

Partners are already stepping forward to assume leadership on specific issues. These include the Addictions Foundation of Manitoba (addressing stigma and public awareness); the Alberta Alcohol and Drug Abuse Commission, Health Canada and CCSA (alcohol); the Public Health Agency of Canada (Fetal Alcohol Spectrum Disorder); Public Safety and Emergency Preparedness Canada (synthetic drugs and marijuana grow ops); Health Canada (research); and CCSA (addictions workforce development).

The National Framework for Action provides an umbrella under which specific national strategies can be developed to address commonly identified priorities. It increases the possibilities for support at all levels and across all sectors; enables better planning and utilization of resources for enhanced effectiveness; and establishes a common frame of reference.

The Framework provides us with a means to move forward by capitalizing on the knowledge and experience residing in provincial, regional and municipal strategies and by exploiting existing networks. The shared ownership of the Framework provides opportunities for leaders to emerge while, at the same time, advocates have increased ability to forge partnerships in developing new strategic plans or bolstering existing ones.

The National Framework for Action is a bold and ambitious venture, unprecedented in its scope and intent. It has progressed further than many people might have thought possible, but it still has some distance to go. In fact, the goal of the National Framework for Action is not to reach a prescribed destination, but to provide a mechanism for ongoing dialogue among the many thousands of people who devote their lives and careers to the task of eliminating or reducing the harms associated with the abuse of alcohol and other drugs and substances.

For more information on the National Framework, visit: www.nationalframework-cadrenational.ca. ■

[1] This article is an edited version, with some updated information, of an article written by the authors in 2005.

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[4] Released in the spring of 2006, this report can be found on the CCSA web-site at www.ccsa.ca.

[5] Office of the Auditor General. (2001). *Report of the Auditor General of Canada on Illicit Drugs – The Federal Government's Role.* Ottawa, ON: Government of Canada.

[6] Special Senate Committee on Illegal Drugs. (2002). *Report of the Special Senate Committee on Illegal Drugs – Cannabis: Our Position for a Canadian Public Policy.* Ottawa, ON: Senate of Canada.

[7] House of Commons Special Committee on Non-Medical Use of Drugs. (2002). *Report of the House of Commons Special Committee on the Non-Medical Use of Drugs (Bill C-38).* Ottawa, ON: Government of Canada.

[8] The National Framework – and "Answering the Call" – can be found at: www.nationalframework-cadrenational.ca

National thematic workshop on corrections: Addressing substance abuse through collaboration[1]

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The use and abuse of drugs and alcohol in correctional settings is a major challenge in all correctional jurisdictions, including federal, provincial and territorial systems in Canada as well as correctional systems around the world. In Canada, at the federal level, nearly 80% of offenders are identified as having a problem with the use of alcohol or drugs when they enter a penitentiary. Nearly one quarter of offenders entering penitentiaries are serving sentences for drug offences.[3] The use and distribution of drugs and alcohol contribute to violence within the prison environment. In addition, the use of drugs poses health risks for both inmates and the general public as serious, and potentially fatal, diseases (like HIV/AIDS and Hepatitis C) can be transmitted through the sharing of drug use paraphernalia, sexual activities and tattooing.

Canada has embarked on the development of a national framework to address the challenges posed by problematic alcohol and drug use within the Canadian population. The outcome of this work is the National Framework for Action to Reduce the Harms Associated with Alcohol and Other Drugs and Substances in Canada.[4] Health Canada and the Canadian Centre on Substance Abuse (CCSA) have co-led the development of the National Framework through extensive consultations across the country. One objective of the consultations was to obtain input for the National Framework by key stakeholder groups, such as the corrections community.[5] The national thematic workshop on corrections was designed to develop input for the Framework.

Background

The need for the thematic workshop was identified in a decision by the Heads of Corrections.[6] The Correctional Service of Canada's Addictions Research Centre organized the event with assistance from Health Canada and CCSA. The two-day workshop was held at the Addictions Research Centre in Montague, Prince Edward Island.

Objectives

The thematic workshop was designed to achieve three main objectives:

1. To review the issues and challenges related to treating substance abuse within the Canadian adult offender population, both in custody and under community supervision;
2. To set priorities and directions for treating substance abuse within the Canadian adult offender population; and
3. To network and learn about the different approaches and initiatives used across jurisdictions – federal, provincial and territorial.

In addition, the workshop was held to ensure that correctional issues and priorities formed part of the National Framework and to initiate cross-jurisdictional discussions that might lead to co-operative and collaborative activities.

Participants

Nine of the 14 correctional jurisdictions in Canada were represented at the meeting; unfortunately, two of the largest, Ontario and Quebec, were not. Each jurisdiction was asked to send two representatives. Participants included senior managers, researchers and line staff, all of whom had a strong interest in addressing the problem of substance use in their correctional systems. The meeting was also attended by representatives of CCSA and Public Safety and Emergency Preparedness Canada.

Key issues

At the start of the meeting, participants were asked to identify what they saw as the most significant issues or needs with regard to substance abuse in their correctional setting. Participants noted that they had observed an increase in the prevalence of drug use and

addictions in correctional facilities. Linked with this was a change in offenders who were "sicker," more likely to have co-occurring disorders, and who had started using drugs at an earlier age. The offenders were identified as being younger, and gang affiliation made work with them more difficult.

It was suggested that substance abuse issues should be framed in terms of health within a public safety context. There was frustration expressed over the changing priority assigned to substance abuse challenges and the negative impact these shifts in priority had on the resources that were available. In addition, participants identified the need to obtain political and public acceptance of harm reduction approaches that would benefit offenders.

Participants identified the need to develop more consistent approaches to treatment that can be supported by research to demonstrate its effectiveness. Collaboration was seen as a way to promote effective interventions and to ensure that resources and best practices are shared across all jurisdictions.

Challenges were identified in obtaining treatment for offenders in the community. Often, treatment options are limited and may not fit with the needs of offenders being released from prison or under supervision in the community. Access to methadone maintenance treatment was identified as one area requiring particular attention.

Rural and small communities were described as facing particular problems with the limited accessibility of services in jurisdictions that have large geographic areas. Where treatment was available, there was a shortage of resources and an inability to follow-up on cases. The issues of Fetal Alcohol Spectrum Disorder and inter-generational addictions were identified as targets for reducing the cycle of addictions that is often observed.

The over-representation of Aboriginal peoples in both correctional settings and addictions was identified as a unique challenge requiring specialized programming. In communities where funds were limited, it was often difficult to fund the needed activities.

There was general agreement among participants that all jurisdictions were working to facilitate change and provide support for offenders. Consistently, participants identified public safety as an extremely important issue, and saw treating substance abuse among offenders as part and parcel of the effort to improve public safety.

Workshop participants identified a number of significant and pervasive challenges that needed to be overcome nationally if we are to effectively address substance abuse issues. The most important of these challenges was the lack of co-ordination and national consistency in approaches, including in the area of assessment. Participants felt that having shared priorities and expectations was important in the quest to find more effective solutions. Prevention and early intervention activities were seen as needed to address problems before they became serious. It was argued that there has been a lack of political will and commitment to truly collaborative approaches. Finally, the need for effective and available community aftercare was cited as an important need.

Strategies

The over-riding message coming from the workshop was that there was a need for consistent or standardized approaches. To address this issue more effectively, participants divided into groups to discuss consistency and standardization in four key areas: 1) assessment, 2) intervention, 3) interdiction and 4) research.

Assessment that is standardized would ensure a common language across jurisdictions, allowing comparisons and more effective analyses of differences. It would also provide for a more seamless sharing of information, more credibility for the assessment tools used, and the ability to share assessment tools and approaches.

Interventions need to be client-centred and holistic, taking account of gender, culture and age, and contribute to the promotion of safety for the public, clients and employees. Interventions that address the full length of the sentence and include all staff associated with the offender will provide the greatest benefit. Of course, any changes in approach will require training and development of the correctional workforce.

Interdiction is an area where sharing of knowledge and experience could be particularly beneficial. Interdiction activities from the basic (non-contact visits and searching) to drug detection dogs, drug testing and ion scanning could be improved by jurisdictions sharing information on protocols and standardizing

procedures. There is a need to have a national repository for results and protocols for implementation and application to ensure consistent results across jurisdictions.

Collaboration in research could best be achieved by identifying an organization that would be able to take a lead role and provide both co-ordination and guidance to all jurisdictions. Collaborative research would ensure that research evaluations are conducted on new programs being offered in each jurisdiction and provide for national surveys and the identification of best practices. It might also lead to the setting of program standards and the development of methods for ensuring program integrity. To achieve the best outcome, a governance structure would be needed that would ensure sharing of both resources and management responsibility for the research that is conducted. It was suggested that this area could be used as a demonstration for collaboration as many of the components already exist, and only the will to move forward is required to co-ordinate activities.

National Framework

The key message from the workshop for the National Framework was that corrections needs to be part of the framework and jurisdictions are willing to work to ensure this happens. Addressing the substance abuse needs of offenders will help to increase the safety of Canadian communities and will reduce the negative impact of drug and alcohol abuse on families and communities. Persons who serve prison sentences ultimately remain part of communities, and their needs must therefore be addressed by the National Framework. Correctional agencies, working with some of the most difficult and resistant clients, have the potential to make a significant contribution to addressing Canada's challenges in substance use and abuse.

In the end, the National Framework for Action to Reduce the Harms Associated with Alcohol and Other Drugs and Substances in Canada does include corrections and offenders as one of its priorities.

Next steps

There is a need to continue meeting and encouraging ongoing collaboration. It was recommended that the momentum created at the workshop in the areas of assessment, intervention, interdiction and research be used to begin collaborative work. There was also a call for a follow-up meeting once membership in a national committee is defined and established.

The workshop focused only on correctional agencies and adults. Other significant stakeholders were identified, and another meeting is needed that will bring together the larger group of stakeholders. This group would include non-governmental organizations, the police, community treatment agencies, the judiciary, the education sector, social and mental health service organizations, victims' groups, and representatives from Aboriginal, First Nations, Inuit and Métis communities. The National Framework foresees co-operation across all levels, and corrections needs to strengthen these relationships. ■

[1] The opinions and ideas expressed are those of the participants at the workshop and are not necessarily those of the author or the Correctional Service of Canada. Hopefully, I have captured the essence of what was discussed.

[2] 23 Brook Street, Montague, Prince Edward Island C0A 1R0.

[3] Motiuk, L. & Vuong, B. (2001). Profiling the drug offender population in Canadian federal corrections. *Forum on Corrections Research*, 13 (3), 25-29.

[4] *Answering the call: A national framework for action to reduce the harms associated with alcohol and other drugs and substances in Canada.* (2005). Ottawa, ON: Health Canada and the Canadian Centre on Substance Abuse. For more information on the National Framework, visit www.nationalframework-cadrenational.ca.

[5] More details on this work are available in the article by Michel Perron and Beth Pieterson included in this issue of *Forum on Corrections Research*.

[6] The Heads of Corrections is an organization that meets semi-annually to discuss issues of mutual concern. It is made up of the head of corrections for each of Canada's 14 correctional jurisdictions (10 provinces, 3 territories and 1 federal corrections agency).

Addictions programming: A perspective on corrections in Nova Scotia

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This article provides a snapshot of a research initiative that has been underway in Nova Scotia and examines challenges faced by Nova Scotia Correctional Services with respect to addiction, recidivism, programming and evaluation.

A large majority of crime for which adult offenders are provincially incarcerated in Nova Scotia is drug or alcohol related, and these offenders report strong interest in taking substance abuse programming, should it be made available to them.

Independent research conducted with the co-operation of Nova Scotia Correctional Services examined strategies by which to secure independent funding for an evidence-based substance abuse pilot initiative, with an eye toward sustainability. At the time that the research was conducted in 2002/03, the provincial corrections budget did not support such an initiative. Department of Justice administrators were, however, exploring the feasibility of introducing evidence-based programming but were concerned with issues around continuity of piloted programming.

Facts of crime and provincial corrections in Nova Scotia

Nova Scotia now has the highest crime rate of all four Atlantic provinces, with an overall 1.7% rate increase reported in 2004.[2] In both 2003[3] and 2004,[4] the Province of Ontario recorded an overall lower crime rate than did Nova Scotia.

In 2004, 82,116 criminal code offences were reported for Nova Scotia (not including traffic offences), showing a rate of 8,764 per 100,000 population.[5] As to violent crime, a total of 11,152 violent crimes were reported for Nova Scotia in 2004, giving way to a rate of 1,190 per 100,000 population.[6]

The rate of incarceration in Nova Scotia for 2003/04 was 26%, lower than Ontario's 41% and Prince Edward Island's 58%, but higher than Saskatchewan's 24%.[7] The average count of persons in provincial correctional facilities across the Province of Nova Scotia in 2003/04 was 153, up 2% from 2002/03.

The average daily number of remanded adults in custody virtually doubled from 1991/92 to 2000/01, going from 56 to 109.[8] This put Nova Scotia among the jurisdictions with the largest percentage increase of remanded offenders, along with New Brunswick, Manitoba and British Columbia.[9] Despite being faced with increasing remand counts since 1991/92 up to 2000/01, Nova Scotia reportedly saw a 5% decrease in the number of remanded offenders for the period 2002/03 to 2003/04.[10]

As of 2001, persons of Aboriginal ancestry represented 7% of all provincially incarcerated adult inmates in Nova Scotia, significantly higher than their 1.87% representation in the general Nova Scotia population.[11]

Nationally, remand admissions have increased from 1986/87 to 2000/01, while sentenced admissions have dropped.[12] Similarly, this trend holds true for Nova Scotia. In 1991/92, 14% of all incarcerated persons in Nova Scotia were persons on remand. By 2000/01, this had increased to 33%, with remand accounting for half or more of all admissions to custody.[13]

Higher remand counts mean that increasingly there are more offenders in custody for shorter periods of time, presenting additional challenges for Nova Scotia Corrections. For example, as noted by Beattie,[14] high volume turnover, combined with frequent movements, creates additional burdens for correctional staff when handling inmates. Despite the added stress and possible unaddressed mental health issues experienced by remanded offenders, however,[15] there have been no suicides reported as occurring in Nova Scotia provincial correctional facilities over the years 2001/02, 2002/03 and 2003/04.[16]

Nova Scotia's provincial forensic-psychiatry service's hospital – the Capital District Health Authority – and one of the province's adult offender correctional facilities – the Central Nova Scotia Correctional Facility – are now housed in co-located facilities on the same campus in Dartmouth, Nova Scotia. The Capital District Health Authority operates and delivers primary care and mental health services to offenders, including methadone therapy, while the Central Nova Scotia Correctional Facility provides security for both facilities. In terms of correctional programming, correctional workers offer some

basic psycho-educational programming (e.g., life skills, anger management) for offenders on the corrections side of the campus. (In order to be provided with methadone therapy, offenders must have been registered in an approved methadone program in the community prior to sentencing.)

While Nova Scotia Corrections has an official policy to provide program opportunities to offenders, thus far none of the programs are accredited. Moreover, though some basic programming is available, it is not consistently provided across the province. Programs offered at the Cape Breton Correctional Centre, for example, may be very different in nature and delivery than those offered at the Central Nova Scotia Correctional Facility in Dartmouth.

Substance abuse among provincially incarcerated adults in Nova Scotia

Head (2001) argues that "all correctional jurisdictions within Canada have been grappling with the issue of alcohol and drug use."[17] Certainly, this is the case with the Province of Nova Scotia, where Correctional Services has been involved in an initiative with a view towards piloting accredited substance abuse programming for offenders housed under its authority. Until 2002 there had been no empirical research conducted in the Province of Nova Scotia to examine the correlation between substance abuse and adult offender crime across the province; nor had there been empirical work to explore the effects of addiction on adult offenders across the province.

To assess the level of substance abuse problems and related needs among the provincially incarcerated population, a study was carried out from 2002 to 2003 across the Province of Nova Scotia by an independent researcher with the co-operation of Nova Scotia Justice, Correctional Services.[18] This research showed that, as reported elsewhere,[19] incarcerated adult offenders in Nova Scotia are challenged by a variety of addictions, including substance abuse and gaming, and that offenders report to be motivated to participate in programming and related treatment services, should they be made available during incarceration.

In Nova Scotia, close to 77% of adult provincial inmates are challenged by substance abuse, and 85.5% of surveyed offenders revealed that substances were related to their crimes.[20] Surveyed respondents across all five provincial correctional sites reported alcohol to be the substance most highly correlated to crime. And as reported elsewhere,[21] repeat offences are more frequent in cases where substances are reported to be related to crime.[22]

Of the 168 respondents surveyed across the province of Nova Scotia, 129 reported a problem with drugs and/or alcohol. Of note, all offenders reporting a problem with drugs or alcohol also reported having had sought help for addiction prior to incarceration, evidencing that they had already made attempts to address personal problems with substances. Importantly, then, provincially incarcerated offenders in Nova Scotia appear to be motivated to engage in substance abuse programming.

Indeed, all 129 surveyed respondents identifying a problem with substances reported a desire to participate in addictions programming while serving their sentence. Frequently, respondents provided comments on the survey expressing frustration with their addiction and a desire to "have a better life."

Motivation for programming was also evidenced when six of seven invited inmates agreed to participate in a research forum through which the researcher sought to explore several issues that surfaced through the surveyed responses to questions around programming and its administration. Only offenders who had participated earlier in the survey component of the research were invited to participate in the focus group. The focus group was held several months after the running of the survey, once the data had been analyzed and specific questions were developed for further examination. By the time the focus group was held, it was determined through a check of Corrections' internal records that only eight offenders who had completed the survey remained in custody. Of those eight, one inmate was denied participation due to an administratively determined security risk. Of the seven remaining, only one chose not to attend the forum.

Research initiative

Independent research was conducted with the co-operation of Nova Scotia Correctional Services in an attempt to address: (a) issues of addiction; (b) the relationship between addiction and recidivism; and (c) programming needs. As Head (2001) observed earlier of Saskatchewan, programming needs for incarcerated adult offenders in Nova Scotia are holistic and diverse, and corresponding substance abuse programming must recognize all aspects of the problem and be "multi-faceted."[23]

Researchers and collaborators involved in the initiative in Nova Scotia applied for funding to a

national granting council but were unsuccessful. The lead researcher had cultivated collaborative partnerships with community organizations and departments of the provincial government and still seeks to offer an integrated approach to programming delivery.

This initiative also involved a knowledge transfer project conducted with Ontario Corrections over 2003/04, through which discharge planning, case management and programming strategies were examined with an eye toward the pilot project in Nova Scotia. Indeed, at the time that the pilot research initiative was underway, the design of the accredited programming hoped to be adopted in Nova Scotia for incarcerated offenders was the one that was then newly introduced by the Ministry of Community Safety and Correctional Services in Ontario. Two facilities in Nova Scotia offered no internal substance abuse programming to offenders. Through the pilot initiative, however, eligible incarcerated offenders who were to be brought to the Central Nova Scotia Correctional Facility would have been able to receive accredited substance abuse programming.

The practice in Nova Scotia Corrections is for front-line correctional workers to deliver programming to offenders. When considering the needs of incarcerated populations, however, it may be more conducive to offenders' feelings of safety to have programs delivered by one or more counselling specialists from outside of corrections. Other research has shown that offenders express a general lack of trust for correctional officers, especially in settings that require intimate disclosure and vulnerability on the part of program participants.[24]

A further independent initiative examining another form of addiction is now underway in Nova Scotia. This initiative is exploring the links between problem, or pathological, gambling and crime, and assessing the need for gaming education, programming or treatment among provincially incarcerated adults in Nova Scotia. This overlapping study on gambling and crime thus far shows that 45% of surveyed offenders at the Central Nova Scotia Correctional Facility self-identified problems with gambling, and all 45% reported problems with video lottery terminals (VLTs). In addition, 20% of respondents reported having committed crime for reasons related to gambling.[25] If warranted by the needs analysis and an assessment of the link between gaming and crime, external funding will be sought to support education and programming for problem gambling among adult inmates in Nova Scotia.

Conclusion

The research initiative discussed in this paper has been unfolding for more than three years. The project is proposed to unfold in three primary stages: (1) measuring re-incarceration rates for the Province of Nova Scotia over the years 2000 to 2005; (2) piloting accredited substance abuse programming, with an eye toward sustainability; and (3) evaluating accredited programming put into place.

In the future, with external funding, the lead investigator hopes to develop a longitudinal study to follow program participants over the long term, assessing outcomes of accredited substance abuse programming in terms of programming success, recidivism and questions for subsequent research. ■

1 Department of Sociology, Acadia University, Wolfville, Nova Scotia B4N 4C7.

2 Sauvé, J. (2005). Crime statistics in Canada, 2004. *Juristat*. Canadian Centre for Justice Statistics, Statistics Canada—Catalogue no. 85-002-XPE, Vol. 25, no. 5.

3 Wallace, M. (2004). Crime statistics in Canada, 2003. *Juristat*. Canadian Centre for Justice Statistics, Statistics Canada—Catalogue no. 85-002-XIE, Vol. 24, no. 6.

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The Canadian Addiction Survey: Substance use and misuse among the Canadian population

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In November 2004, Canada's first national survey in a decade dedicated solely to alcohol, cannabis and other illicit drug use was released. The Canadian Addiction Survey (CAS)[2] *is unparalleled in terms of the breadth of substance use indicators and issues it examined among Canadians aged 15 years and older.*

Using self-reported information, the survey measured the prevalence, incidence and patterns of alcohol and other drug use; harms from use on physical, mental and social well-being; the context, risk and protective factors associated with use; and public opinions, attitudes and knowledge related to drug and alcohol issues, programs and policies.

This article presents some of the survey findings on alcohol and drug use and harms, as well as public attitudes and opinions about drug use and drug policies. Also included is a discussion of the link between crime and alcohol and drug use.

For this survey, researchers compiled a sample of 13,909 Canadians[3] 15 years of age and older from a random selection of telephone numbers. A minimum of 1,000 respondents were sampled in each province.[4] The Montreal research firm Jolicoeur and Associates conducted the survey via telephone interviews between December 16, 2003, and April 19, 2004.

A unique feature of the CAS was the collaboration among researchers, levels of government and addiction organizations.[5] CAS partners included Health Canada; the Canadian Executive Council on Addictions (CECA)—which includes the Canadian Centre on Substance Abuse (CCSA); the Alberta Alcohol and Drug Abuse Commission (AADAC); the Addictions Foundation of Manitoba (AFM); the Centre for Addiction and Mental Health (CAMH); the Prince Edward Island Provincial Health Services Authority; the Kaiser Foundation/Centre for Addictions Research of British Columbia (CAR-BC); and the provinces of Nova Scotia, New Brunswick and British Columbia.

Preliminary analysis of the CAS data focused on alcohol and illicit drug use and harms, comparing findings across provinces and analyzing changes over time in substance use. The descriptive information set out below examines alcohol and drug use and misuse among Canadians, and the consequences of consuming these psychoactive substances by sex and age.

Alcohol use and related harms

In keeping with the results of previous surveys, the CAS reveals that the majority of Canadians consumed alcohol at some point in the year prior to the survey. The percentage of "past-year" or "current" drinkers went from 72.3% of Canadians in 1994 to almost 80% in 2004 (see Table 1). That said, according to the survey results, most past-year or current drinkers in Canada drank in moderation.

The prevalence of alcohol use, the frequency of drinking, the quantity consumed in a sitting and the harmful consequences from alcohol varied by demographic characteristics, particularly by sex and age. Past-year drinking was significantly more common among males (82%) than females (76.8%). Males were also more likely to report more frequent drinking occasions on a weekly basis than females. Among current (past-year) drinkers, 41.3% of males compared with 26.9% of females reported consuming alcohol one to three times a week, and 13.9% of males compared with 5.9% of females reported four or more drinking occasions in a week.

Looking at age, 90% of 18-to-24-year-olds were past-year drinkers. Although the age to legally

Table 1

Alcohol consumption

	Percent
Drinkers – past year	79.3
Drinking type[a]	
Abstainer	7.2
Former drinker	13.5
Light infrequent (less than 5 drinks, less than once a week)	38.1
Light frequent (less than 5 drinks, more than once a week)	27.3
Heavy infrequent (5 drinks or more, less than once a week)	5.5
Heavy frequent (5 drinks or more, more than once a week)	7.0

[a] "Not stated" was used in the calculation of rates.

consume alcohol in Canada is 19 in seven of the ten provinces and 18 in the remaining three, 17.4% of young people under the age of 18 and 34.1% of 18-to-19-year-olds who were current drinkers reported consuming alcohol at least once a week.

Research in clinical settings has found that heavy drinking increases the risks of developing alcohol-related problems. In the CAS, heavy drinking was defined as having five or more drinks at a sitting for males and four or more drinks at a sitting for females. Using this definition, among current drinkers, 9% of males compared with less than 4% of females engaged in weekly heavy drinking.

Young people between 15 and 24 years of age reported this risky drinking pattern more frequently. Broken down by age categories, 7.6% of 15-to-17-year-olds, 16.1% of 18-to-19-year-olds and 14.9% of 20-to-24-year-olds reported weekly heavy drinking.

Monthly heavy drinking was reported by a third of males and 17% of females. Among 18-to-24-year-olds, approximately half reported monthly heavy drinking.

. . . 9% of males compared with less than 4% of females engaged in weekly heavy drinking.

In light of these results, it is not surprising to find that males and youth ages 18 to 24 were more likely to exceed Canadian low-risk drinking guidelines.[6]

The CAS includes measures of hazardous drinking patterns, harm related to one's alcohol consumption and harm from others' drinking. Consistent with the finding that most Canadians are moderate drinkers, the CAS showed that most Canadians do not have alcohol-related problems and most drinking occasions do not result in harm.

Hazardous patterns of alcohol consumption were measured in the CAS by the Alcohol Use Disorders Identification Test (AUDIT).[7] AUDIT scores of eight or more indicate hazardous drinking behaviour, harmful consequences and/or dependency. Among current drinkers, 17% scored 8+ on the AUDIT. The proportion of drinkers identified as hazardous was less than 10% for females and approximately 25% for males.

. . . rates of hazardous drinking peaked in the 18-to-19 age group . . . .

Among the 17% of current drinkers who drank hazardously in the 12 months preceding the survey, rates of hazardous drinking peaked in the 18-to-19 age group with 44.6% scoring 8+ on the AUDIT. Hazardous drinking decreased with age, however, with 34.2% of 20-to-24-year-olds, 21.1% of 25-to-34-year-olds and 14.2% of 35-to-44-year-olds scoring 8+ on the AUDIT. Significantly, the second highest rate of hazardous drinking was among 15-to-17-year-olds, suggesting that underage drinkers in Canada engage in risky drinking practices.

. . . the second highest rate of hazardous drinking was among 15-to-17-year-olds . . . .

Nearly 1 in 10 current drinkers (8.8%) reported that their drinking had caused harm to themselves or others in the previous year. As shown in Table 3, 3% of current drinkers reported alcohol having a harmful effect on their friendships or social life, and 5.4% reported harmful effects on their physical health. Current drinkers also reported adverse effects from their own drinking on their home life and marriage

Table 2

Past-year alcohol use

	Less than 5 drinks	5 drinks or more
Less than once a week	38.7% Light infrequent	5.6% Heavy infrequent
More than once a week	27.7% Light frequent	7.1% Heavy frequent

Table 3

Alcohol use had a harmful effect on your...

	Percent experiencing harm in lifetime[a]	Percent experiencing harm in past year[b]
Friendships or social life	14.2	3.0
Physical health	14.8	5.4
Home life or marriage	8.1	1.8
Work, studies or employment opportunities	6.8	1.7
Financial position	6.9	2.7

a Percent answering "yes" among current and former drinkers, n = 12,883.
b Percent answering "yes" among current (past year) drinkers, n = 10,696.

Table 4

Harms from others' drinking – Past year

	Percent
Insulted or humiliated	22.1
Argument/Quarrels	15.5
Verbal abuse	15.8
Family problems or marriage difficulties	10.5
Passenger with drunk driver	17.8
Pushed or shoved	10.8
Hit/Assaulted	3.2

(1.8%); their work, studies or employment opportunities (1.7%); and their financial position (2.7%). It is noteworthy that roughly a quarter of lifetime drinkers (i.e., current and former drinkers) reported one or more of these harms from their own alcohol consumption.

Males were more likely than females to report at least one harm during the past year from their own drinking (10.5% for males versus 7.1% for females), as were young people between 15 and 24 years of age (21.8%) and respondents who drank heavily, i.e., heavy-frequent drinkers (31.5%) and heavy-infrequent drinkers (16%).[8]

Looking at harm from others' drinking, almost one in three respondents aged 18 years and older (32.7%) reported harm in the past year from the drinking of others.[9] As shown in Table 4, roughly 1 in 10 Canadians reported social relationship (family or marriage) problems in the past year due to someone's drinking. Other past-year harms from someone's use of alcohol fell into one of two categories: verbal aggression or physical altercations. More than 20% of respondents indicated that they were insulted or humiliated because of someone's drinking, 15.8% reported experiencing verbal abuse and 15.5% reported involvement in serious arguments or quarrels.

. . . the younger the respondent, the more likely to report harm from others.

While past-year rates of physical harm and assault were lower than the rate of verbal arguments, they are not trivial. Over 10% of respondents reported having been pushed or shoved because of others' drinking in the past year, and 3.2% experienced being hit or physically assaulted.

Gender did not affect the rate of reported alcohol-related harm from others' drinking during the year; the rates for women and men were similar at 32.6% and 32.9%, respectively.

Age was found to be inversely related to harm from others' drinking; the younger the respondent, the more likely to report harm from others. The majority of 18-to-19-year-olds (62.6%) and 20-to-24-year-olds (58.3%) reported experiencing harm in the previous year from the drinking of others.

Heavy drinkers were also more likely to report having been harmed by someone else's drinking. Just over half of heavy-frequent drinkers (52.3%) and 46.7% of heavy-infrequent drinkers reported such harm from others in the past year.

Cannabis use and related harms

The CAS shows that both lifetime and past-year cannabis use among Canadians has been rising. Indeed, self-reported past-year use of cannabis doubled to 14.1% of Canadians in 2004 from 7.4% in 1994, and lifetime use moved upward during the decade from 28.2% in 1994 to 44.5% in 2004.

. . . both lifetime and past-year cannabis use among Canadians has been rising.

As with alcohol use, sex and age were key demographic correlates of cannabis use. Males were more likely than females to report both lifetime use and past-year use of cannabis: 50.1% of males versus 39.2% of females for lifetime use, and 18.2% of males versus 10.2% of females for past-year use.

Table 5

Percent reporting cannabis-related symptoms indicative of intervention need

	Past-year users n = 1,851	Total sample n = 13,909
Strong desire to use in past 3 months	32.0	4.5
Health, social, legal problems in past 3 months	4.9	0.7
Failed expectations in past 3 months	6.9	1.0
Friends concerned with use ever in lifetime	15.7	2.2
Failed to control use ever in lifetime	34.1	4.8

Moreover, the younger the age group, the greater the proportion of respondents reporting having ever used cannabis and having used during the past 12 months. Nearly 70% of respondents between the ages of 18 and 24, and 39% between the ages of 15 and 17, reported having ever used cannabis. Among those who had used cannabis in the past year, the rate of use peaked among 18-to-19-year-olds at 47.2%.

The frequency of cannabis use during the three months prior to the CAS shows wide variation among past-year users. Of significance, among those who had used cannabis at some point in the past year, 46% reported no use or use only once or twice in the three months before the survey. Nevertheless, a sizable proportion of past-year users reported weekly (20.3%) and daily use (18.1%) during the previous three months.

Among those who had used cannabis in the past year, the rate of use peaked among 18-to-19-year-olds at 47.2%.

The CAS assessed survey respondents for cannabis-related problems using the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) developed by the World Health Organization.[10] A strong desire to use cannabis and failure to control use of the substance were the personal harms most frequently reported by cannabis users. As seen in Table 5, for the total sample, 4.5% of respondents reported a strong desire to use in the last three months and 4.8% reported that they had failed to control their cannabis use at some point in their lives. Among past-year users, about one third reported a strong desire to use and failure to control use. Moreover, among past-year users, close to 16% reported friends expressing concern with their use of cannabis, 7% reported failure to do what had been expected of them and 5% reported health, social or legal problems owing to their cannabis use.

Other drug use and harms

Most Canadians restrict their use of illicit drugs to cannabis only. Apart from cannabis, however, the most commonly used illicit drugs during respondents' lifetime were hallucinogens (11.4%), cocaine (10.6%), speed (6.4%) and ecstasy (4.1%). Lifetime use of psychoactive substances such as inhalants, heroin, steroids and injection drug use was negligible, i.e., 1% or less.

Males were more likely than females to report lifetime use of any of the following illicit drugs: hallucinogens, cocaine, speed, ecstasy and heroin. More specifically, 21.1% of males versus 12.2% of females reported having used at least one of these drugs at some point in their lives. Interestingly, rates of lifetime use of these drugs did not vary greatly between the 18-to-19 and 45-to-54 age groups. The 55-to-64 age group, however, reported a significantly lower rate of lifetime illicit drug use than the younger age groups. Moreover, rates of use were significantly higher among 18-to-19-year-olds compared to 15-to-17-year-olds.

As shown in Table 6, 3% of respondents reported using at least one of the following five illicit drugs in the year before the survey: hallucinogens, cocaine, speed, ecstasy and heroin. More specifically, the rate of current use (i.e., use in the past year) of cocaine was 1.9%, with 1.1% for

Table 6

Other drug use

	Percent
Cannabis – lifetime	44.5
Cannabis – past year	14.1
Any drug (excl. cannabis) – lifetime	16.5
Any drug (excl. cannabis) – past year	3.0
Cocaine/crack – lifetime	10.6
Cocaine/crack – past year	1.9
LSD – lifetime	11.4
Speed – lifetime	6.4
Heroin – lifetime	0.9

Table 7

Harm from illicit drug use (excluding cannabis)

	Percent
Friendships or social life	
Lifetime users	22.3
Past-year users	16.4
Physical health	
Lifetime users	30.3
Past-year users	23.9
Work, studies or employment opportunities	
Lifetime users	18.9
Past-year users	14.2
Financial position	
Lifetime users	19.6
Past-year users	18.9

ecstasy and less than 1% for hallucinogens, speed and heroin.

Males were significantly more likely than females to report past-year use of any of the five illicit substances (4.3% for males versus 1.8% for females). Additionally, rates of past-year illicit-drug use were highest among 18-to-19-year-olds (17.8%) and 20-to-24-year-olds (11.5%).

Close to half of lifetime users (45.7%) and over a third of past-year users (36.7%) of hallucinogens, cocaine, speed, ecstasy and heroin (excluding cannabis) reported one or more types of harm from their own drug use. As seen in Table 7, the most common harm reported was to physical health, identified by 30.3% of lifetime users and 23.9% of past-year users of illicit drugs (excluding cannabis). Harmful effects on friendships and social life from the five drugs were reported by 22.3% of lifetime users and 16.4% of past-year users; on home life or marriage by 18.9% of lifetime users and 14.1% of past-year users; on financial position by 19.6% of lifetime users and 18.9% of past-year users; on work, studies or employment opportunities by 18.9% of lifetime users and 14.2% of past-year users; and on learning by 12% of lifetime users and 8.3% of past-year users.

Importantly, past-year users of illicit drugs (excluding cannabis) were more than five times more likely than lifetime users to report symptoms indicative of intervention need as determined by the ASSIST scale (42.1% of past-year users versus 7.8% of lifetime users). Among these past-year users, the most common symptoms reported that are indicative of being at risk (i.e., moderate/high risk of developing problems) were failure to control, cut down or stop using drugs (33.1%); a friend or relative expressing concern (23.8%); and a strong desire to use (21.5%).

While it is not possible to generalize patterns of use and related consequences from the general population to the inmate population, upward trends in consumption patterns of alcohol and cannabis in the general population resulting in intoxication and dependence may be reflected in sub-groups of the population, including prison inmates and other criminal justice populations.

Substance use and misuse among federal offenders

Most offenders use drugs and alcohol, and many misuse these substances. One Canadian study of federally sentenced offenders found that at least 70% of inmates had consumed alcohol and illicit drugs in a problematic manner during the 12-month period preceding their incarceration.[11] Moreover, an assessment of inmates housed in federal correctional institutions revealed that slightly more than half (51%) have an alcohol problem and just under half (48%) have problems with drugs other than alcohol.[12]

Among this population, the severity of substance use and related problems from misuse vary. Approximately a third of federal offenders who consume substances do not exhibit signs of problematic use (even though they may consume alcohol and some illicit drugs), another third are considered to have low severity problems and the final third display more serious substance use difficulties, including about 1 in 5 (20%) who have dependence problems.[13] Similar prevalence rates and severity distributions have been found in other correctional jurisdictions including the U.S. and the U.K.[14]

Additional Canadian research has found a direct positive relationship between an offender's substance abuse severity and the likelihood that he or she consumed alcohol or other drugs on the day of the offence on their present sentence and over their lifetime.[15]

Approximately a quarter of federal inmates (23%) had committed their crimes in order to obtain alcohol and/or drugs for their personal use.

The above demonstrates an association between the use and misuse of psychoactive substances and the commission of crimes; it does not, however, establish a causal relationship. Research was initiated by the Canadian Centre on Substance Abuse and conducted by Pernanen et al. (2002) to produce estimates of the fraction of crimes committed in Canada that are attributable to the use and misuse of alcohol and other drugs.[16] This research found that a significant proportion of federal offenders (serving sentences of two years or more in a federal institution) and provincial offenders (serving sentences of less than two years in a provincial correctional facility) were impaired by, or dependent on, alcohol or illicit drugs at the time of their crime. Among male federal inmates, 16% were assessed as dependent on alcohol, 31% as dependent on one or more illicit drugs and 8% as dependent on both

drugs and alcohol. Approximately a quarter of federal inmates (23%) had committed their crimes in order to obtain alcohol and/or drugs for their personal use.

Over half of the federal inmates in the study reported having been intoxicated by a psychoactive substance at the time they committed the most serious offence on their current sentence. Alcohol impairment was reported by 24% of inmates, 19% were under the influence of a drug and 14% reported being intoxicated by both alcohol and drugs.

Estimates were developed of the proportion of crime (violent versus acquisitional or gainful) committed by federal offenders in Canada that can be attributed to alcohol and illicit drugs. Among federal offenders, roughly half of violent crimes (49%) were attributed to alcohol and/or illicit drugs – 5% to drugs only, 28% to alcohol only and 16% to alcohol and drugs combined. In addition, half of gainful crimes were attributed to alcohol and/or other drugs – 20% to drugs only, 11% to alcohol only and 19% to drugs and alcohol combined.[17]

Canadian public attitudes and opinions regarding cannabis and other illicit drugs

In addition to questions related to drug and alcohol use and related harms, the CAS included numerous questions to assess public attitudes and opinions on policies and programs dealing with substance abuse in Canada. Several of these questions are relevant to discussions involving substance abuse and corrections.

In light of the recent activity involving cannabis decriminalization in Canada, the survey asked respondents whether they agreed or disagreed with the statement: "People should be allowed to use marijuana as it is not a dangerous drug." Overall, 60% of respondents either strongly disagreed or disagreed with this statement, suggesting that a majority of Canadians believe that cannabis use should continue to be controlled to some degree. A further question asked respondents directly the degree to which they supported current efforts to decriminalize cannabis, and most (57.2%) said that they either strongly supported or supported decriminalization.

In terms of opinions on sentencing for cannabis offences, Canadians were strictly divided as to whether or not possession of small amounts of cannabis for personal use should be against the law: 46.1% believed it should be illegal and 49.8% said that it should not.

Finally, the survey asked respondents whether Canadians should be allowed to grow a small number of cannabis plants for personal use. Most respondents (57.7%) felt that people should not be allowed to grow cannabis for personal use.

A second set of questions probed public attitudes and opinions about illicit drugs. Significantly, when respondents were asked to select in which area of society substance abuse has the most impact, criminality was picked most commonly (38.7%) followed by family problems (29%), law enforcement costs (12.8%), health care costs (6.6%) and other reasons. Thus, when law enforcement and criminality are combined, over half of Canadians believe that these areas are the most affected by substance abuse.

Respondents were also asked to assess how well Canada is doing in regards to dealing with substance abuse. In general, the public does not feel that Canada is well prepared to deal with this problem: 53.6% disagreed with the statement that "all required programs and tools to deal with drug use are in place;" 64.9% did not agree that "Canada is well prepared to deal with drug use;" 50.5% disagreed with the statement that "adequate measures are in place to address drug problems;" and 58.7% did not feel that "governments are investing enough resources to deal with drug use."

. . . Canadians were strictly divided as to whether or not possession of small amounts of cannabis for personal use should be against the law . . . .

In terms of basic approaches to dealing with drug abuse, the majority of CAS respondents (71.4%) did not think that "it is possible to have a society free of drugs" and most (78%) preferred prevention and treatment to law enforcement and incarceration (18.7%) as a way to deal with problematic substance use. In addition, a large majority (82.8%) indicated that the government should provide a variety of treatments rather than make drug use criminal. Canadians still see a role, however, for supply reduction with a majority (78.3%) recognizing the need for increased investment in enforcement.

Finally, the survey asked respondents about their knowledge of, and support for, several innovative approaches to dealing with drug use, including drug treatment courts. A strong majority of

respondents said that they had never heard of drug treatment courts; an even larger majority (78.9%), however, said that they supported drug treatment courts.

Conclusion

The information in the CAS provides an important glimpse into the patterns of alcohol and other drug use of Canadians – access that has not been available on a national scale since 1994. Results from the survey conducted so far reveal that the majority of Canadians consume alcohol within recognized safe limits, and that it tends to be younger people, and males in particular, who are more likely to consume alcohol more heavily and in ways that may place them at risk for alcohol-related problems.

Canadians' consumption of cannabis has increased over the past decade, and, again, younger people and younger males are more likely to have consumed cannabis in the past 12 months.

Further, CAS findings confirm that Canadians consume the full range of illicit drugs, but at rates that are significantly below that of cannabis.

In some respects, offenders in Canada mirror the general population's usage patterns of alcohol and other drugs. The prevalence of substance use problems of this particular sub-group of the population, however, is dramatically more serious than virtually any other population sub-group – particularly with respect to the risk it poses both to themselves and to the health and well-being of others around them. Clearly, considerable resources, both fiscal and human, are warranted in order to minimize the likelihood of future substance abuse and criminality. ■

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[2] Adlaf, E.M., Begin, P., & Sawka, E. (Eds.). (2005). *Canadian Addiction Survey (CAS): A national survey of Canadians' use of alcohol and other drugs: Prevalence of use and related harms: Detailed report.* Ottawa, ON: Canadian Centre on Substance Abuse.

[3] Canadians not living in conventional households – i.e., prisons, hospitals, military establishments – and transient populations, such as the homeless, were not included in the survey.

[4] Health Canada surveyed the three territories separately using culturally appropriate research methods.

[5] The CAS Research Advisory Team developed and implemented the CAS instrument and conducted the preliminary analysis of prevalence of substance use and related harms. Team members were, from west to east: Ed Sawka, Alberta Alcohol and Drug Abuse Commission (AADAC); David Patton, Addictions Foundation of Manitoba (AFM); Ed Adlaf, Centre for Addiction and Mental Health (CAMH); Jürgen Rehm, CAMH; Anca Ialomiteanu, CAMH; Patricia Begin, Canadian Centre on Substance Abuse (CCSA); Eric Single, CCSA; Stéphane Racine, Health Canada; Robert Hanson, Health Canada; Florence Kellner, Carleton University; Andrée Demers, University of Montreal; Christiane Poulin, Dalhousie University. Financial and in-kind contributions were provided by AADAC, AFM, CAMH, CCSA, Health Canada and the provinces of British Columbia, New Brunswick and Nova Scotia.

[6] Canadian guidelines for low-risk drinking recommend that weekly alcohol consumption not exceed 14 standard drinks for males and 9 drinks for females and that daily alcohol intake not exceed 2 drinks. Among past-year drinkers, 22.6% exceeded the guidelines; 32.3% of 18-to-19-year-olds and 38% of 20-to-24-year-olds reported drinking in excess of these guidelines.

[7] The AUDIT is a 10-item questionnaire typically used to screen for alcohol problems in clinical settings. It measures lack of control over one's own drinking, failure to meet expectations, drinking in the morning, feelings of guilt, blackouts, injuries resulting from drinking, and having someone express concern about drinking.

[8] "Heavy-infrequent" was defined as consuming five drinks or more of alcohol less than once a week. "Heavy-frequent" was defined as consuming five drinks or more, more than once a week.

[9] Due to the sensitivity of some questions, only respondents 18 years of age and older were asked about harm from others' drinking.

[10] The ASSIST includes five questions that were asked of respondents who had used cannabis during the three months before the survey. Items included: (1) how often they had a strong desire or urge to use cannabis; (2) how often their use of cannabis led to health, social, legal or financial p oblems; (3) if they failed to do what was normally expected of them because of their use of cannabis; (4) whether a friend or relative or anyone else ever expressed concern about their use of cannabis; and (5) whether they ever tried and failed to control, cut down or stop using cannabis. The first three items refer to the past three months; the remaining two to lifetime use. Each item represents a cannabis-related symptom indicative of intervention need. A score of 4+ on the ASSIST indicates moderate/high risk of developing problems.

[11] Weekes, J.R., Moser, A.E., & Langevin, C.M. (1999). Assessing substance-abusing offenders for treatment. In E.J. Latessa (Ed.) *Strategic solutions: The International Community Corrections Association examines substance abuse.* Lanham, MD: American Correctional Association Press.

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[15] Weekes et al. (1999), Assessing substance-abusing offenders for treatment.

[16] Pernanen, K., Cousineau, M-M., Brochu, S., & Sun, F. (2002). *Proportions of crimes associated with alcohol and other drugs in Canada.* Ottawa, ON: Canadian Centre on Substance Abuse.

[17] According to Pernanen et al. (2002), alcohol and illicit drugs are causally linked to the commission of violent and gainful crimes in two ways: (1) by taking the proportion of inmates who reported (a) that they were intoxicated by a substance when the crime of violence was committed and (b) that they would not have committed the offence if they had not been impaired by alcohol or drugs; and (2) by taking the proportion of inmates who (a) reported they had committed the crime to get drugs or alcohol and (b) were assessed as alcohol or drug dependent.

The Computerized Assessment of Substance Abuse (CASA)

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The Correctional Service of Canada's standardized approach to the assessment of criminogenic need is consistent with the principles of effective correctional treatment.[2] *These principles argue that offenders who present with higher needs should be matched to more intensive and extensive services so that the probability of re-offending is diminished. Low-need offenders, on the other hand, require minimal to no treatment.*

This article describes the Computerized Assessment of Substance Abuse (CASA) and the key research findings supporting its utility as a tool for identifying the level of criminogenic need in an offender population.

Standardized assessment

There is general agreement in the field of addictions that a standardized assessment approach builds efficiency in the system, ensures consistency or a common language among decision makers and stakeholders across the service-delivery continuum, and facilitates treatment-seeking behaviour by building motivation and a commitment to change in the client.[3]

Advancements in computer technology have created opportunities for innovation in assessment.

Advancements in computer technology have created opportunities for innovation in assessment. Research in this area has demonstrated that efficient, computerized assessment models have the potential to increase candidness in self-reporting and improve the accuracy of results.[4] From a policy perspective, an electronic database of standardized assessment results provides an excellent means of informing best practices policy because this information can be readily transformed into knowledge about the population's characteristics.

The Computerized Assessment of Substance Abuse (CASA)

In 1999, the Correctional Service of Canada (CSC) began developing the audio-enhanced CASA for the purpose of establishing substance-abuse severity levels and matching offender needs to the appropriate level of substance abuse treatment. The CASA serves as a supplementary assessment to the Offender Intake Assessment (OIA). The results are incorporated into the OIA and used by institutional parole officers to generate referrals to the low-, moderate- and high-intensity substance abuse programs available in various institutions.

The 288-item, self-administered CASA explores the nature and seriousness of an offender's substance abuse problems (see Table 1). The severity of alcohol abuse is assessed with the 25-item Alcohol Dependence Scale (ADS), the 15-item Problems Related to Drinking Scale (PRD) and the 25-item Michigan Alcoholism Screening Test (MAST). The MAST and ADS have been used extensively with a number of special populations, including offender populations, to assess severity of alcohol abuse.

. . . efficient, computerized assessment models have the potential to increase candidness in self-reporting and improve the accuracy of results.

To assess the severity of drug abuse, the CASA employs the 20-item Drug Abuse Screening Test (DAST) and the 5-item Severity of Dependence Scale (SDS). The former focuses on the extent of psycho-social interference and parallels the MAST items, whereas the latter assesses the degree of psychological dependence. The DAST uses the same classification system as the ADS, with severity levels ranging from "none" to "severe."

Table 1

CASA content

Content areas	Number of items
Patterns of alcohol use	36
Consequences of alcohol use – MAST[5]	25
Severity of alcohol problems – ADS[6]	25
Problems related to drinking – PRD[a]	15
Link to past and current offending (alcohol)	20
Patterns of drug use	39
Severity of drug problems – DAST[7]	20
Degree of psychological dependence on drugs – SDS[8]	5
Link to past and current offending (drugs)	19
Injection drug use	6
Poly-substance use patterns	8
In-custody substance use patterns	9
Family-related patterns of use	9
Progress in prior programming	20
Treatment readiness	20
Respondent satisfaction with the CASA	12

[a]The PRD was developed by CSC during the early 1990s. It was derived from the MAST.

All of the scales reference the 12-month period prior to arrest to establish the severity of substance abuse; however, only the results from the ADS, DAST and PRD are considered in the referral criteria. The MAST has been included in the CASA to establish its clinical utility within a CSC context with the end goal of replacing the PRD in the program referral matrix. The SDS has been introduced in the CASA to provide a measure of psychological dependence on drugs and to establish its diagnostic utility within a CSC context. Both may be integrated into the referral matrix in the future.

Severity levels of "substantial" and "severe" result in assignment to the high-intensity substance abuse program. Severity levels of "low" or "moderate" result in referrals to programs with the corresponding intensities. All of the instruments are considered valid and reliable by best practices literature.

Functionality

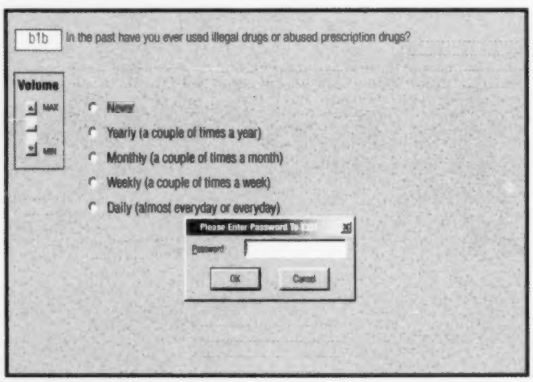
The CASA's computer-controlled question flow and automated data-checking increase the integrity of the data and the quality of self-reported information. When the computer detects major inconsistencies in self-reported information, it adjusts the delivery of subsequent questions so that respondents are presented with additional opportunities to reconcile the inconsistencies. For example, if a respondent denies any substance use during the 12-month period prior to arrest for the current offences, but later reports substance use at the time of the current offences (which occurred during the same 12-month period), the computer displays a message describing this inconsistency and branches back to re-sequence relevant questions.

Each CASA item is delivered sequentially by the software in either French or English. Each question is presented separately along the upper edge of the computer screen while the offender uses a mouse to point and click at the appropriate answers that appear directly below the question. The software uses hidden, conditional logic-branching to present only those questions that are relevant. The system incorporates a variety of visually appealing option buttons, check boxes and text fields similar to those found in web browsers to create a graphic user interface (see Figure 1). Security features such as password protection prevent respondents from exiting the program, windowing between applications and minimizing screens.

The CASA also incorporates an optional audio function to assist respondents with reading difficulties. Digital audio recordings of a human

Figure 1

CASA graphic user interface



voice are linked to each instruction box, question and answer choice. With a click of the mouse button, the computer can play each text string to the respondent in either French or English through a set of headphones.

An automated report, in either French or English, is produced upon conclusion of the computerized interview. Demographic information, summary scores for the standardized measures, substance-abuse severity levels and recommended substance abuse programming appear on the first page. Subsequent pages include a bulleted summary of the respondent's substance abuse history, prior programming and treatment-readiness indices.

Results from the demonstration project

Methodology

The CASA was administered to 907 male offenders who participated in the OIA process at Millhaven and Springhill intake units between May 2002 and January 2004. This sample represents about 36% of the actual admissions to these facilities during that timeframe (N=2,530). Assignment to the CASA was dependent on the availability of the CASA work-stations. The remaining offenders (64%) were assessed with the existing Computerized Lifestyle Assessment Instrument (CLAI) because the rate of admission at the two facilities exceeded the capacity of this demonstration project.

The general aim of the demonstration project was to establish the assessment's ability to appropriately differentiate cases for program referral purposes. Toward this end, the relationship between severity of substance abuse and criminogenic need was examined.

Main findings

First, respondents who were identified as requiring more intensive substance abuse treatment based on the CASA's referral criteria experienced more instability in their personal lives. This was illustrated by the strong association between the level of substance-abuse treatment intensity recommended by the CASA and the overall dynamic-factor (need) rating on the Offender Intake Assessment (OIA).[9] Generally, as the substance-abuse intensity level moved from none to high, the proportion of offenders identified with a high-need rating on the OIA increased (see Figure 2). Clearly, offenders with more severe substance-abuse problems experienced more instability in a number of life areas.

Second, the convergence between the CASA results and the results from the OIA and the Revised Statistical Information on Recidivism Scale (SIR-R1)[10] substantiated the important link between criminal behaviour and substance abuse. Generally, offenders who were assessed by the CASA as requiring more intensive treatment to address their problems with substances of abuse had more involved criminal histories as evidenced by higher static-factor (risk) ratings on the OIA (see Figure 3). These individuals were also rated more likely to re-offend during the first three years after release based on the results from the SIR-R1.

Third, with respect to current offending, higher severity levels on the ADS and the DAST were

Figure 2

Distribution of the overall dynamic-factor rating by recommended substance-abuse program intensity level

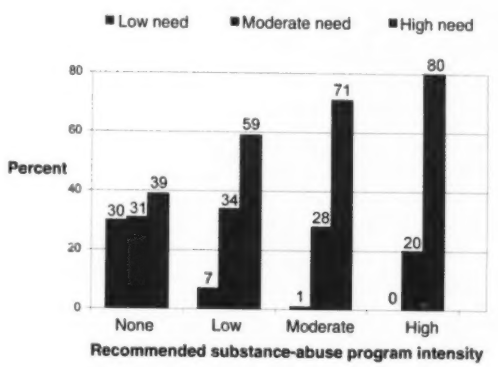
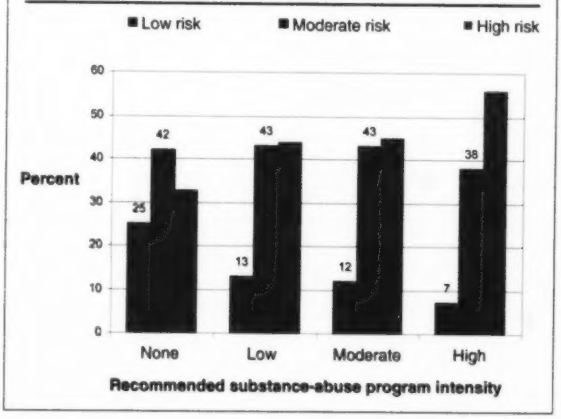


Figure 3

Distribution of the overall static-factor rating by recommended substance-abuse program intensity level



strongly associated with antecedent substance use and impairment. Offenders with higher severity levels on the ADS and DAST were more likely to report substance use and impairment prior to the commission of their current offences than were offenders with lower severity levels. In addition, offenders with higher severity levels on the ADS and DAST were more likely to blame their use of substances for their current offences.

Figure 4 illustrates this important link between substance use and criminal behaviour for the offenders who identified alcohol use as a contributing factor.

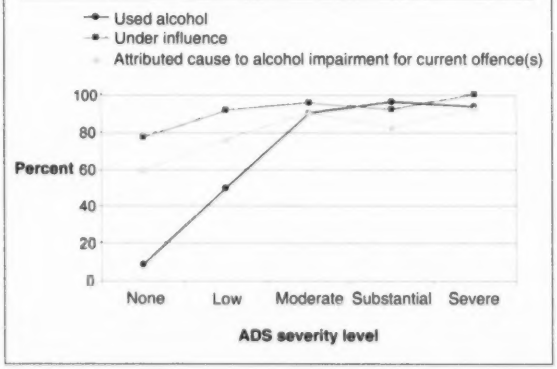
Exacerbated offence-related aggression was closely associated with alcohol use, but not with drug use. It is not surprising, then, that violent offences were more closely related to alcohol impairment than drug impairment, whereas property offences were more closely linked to drug impairment.

Fourth, for this sample of offenders, the most frequently reported drugs of choice were the cannabinoids, followed by crack cocaine, cocaine and opioids. The "other" drug category accounted for less than 10% of the sample.

When the distribution of cocaine, crack cocaine and opioids users were compared to the cannabinoids users and the "other" group, the former were more likely to produce DAST results suggestive of moderate to severe substance abuse problems and SDS results indicative of psychological dependence. This is not surprising since opioids, cocaine and crack cocaine have long been considered highly addictive because of their biochemical mechanisms of action and their behavioural effects on the user.[11] In a correctional context, users of these drugs will require intensive programming to mitigate the drug-related health risks and to address the psycho-social and behavioural problems associated with drug dependence.

Figure 4

Percentage of offenders identifying alcohol as a contributing factor in their current offence(s) by ADS severity level



Conclusions

Offenders who were rated by the CASA as having more severe substance-abuse problems were also more likely to have higher need ratings and criminal-risk ratings on the OIA and on the SIR-R1. This is in keeping with the literature on substance abuse and its link to problems in other areas of an individual's life and to criminal behaviour. In addition, offenders with more severe substance-abuse problems according to the CASA were more likely to have used substances or been impaired by them at the time of their current offence(s). This too is in keeping with the literature on substance abuse and criminal behaviour. Finally, users of cocaine, crack cocaine and opioids were more likely to get higher scores on the CASA related to drug addiction than were users of cannabinoids and "other" drugs. This is in keeping with the literature indicating that cocaine, crack cocaine and opioids are more highly addictive.

In summary, then, the characteristics of the offenders assessed by the CASA at the various substance-abuse severity levels are in keeping with research conducted to date in this field. This would indicate that the CASA efficiently and accurately differentiates offenders by their substance-abuse severity level and thereby for referral to the appropriate intensity level of substance abuse treatment.

Offenders with more severe substance-abuse problems on the CASA were also rated with higher needs and higher criminal risk. Based on the principles of effective correctional treatment, these offenders require more intensive and extensive services to mitigate the risk of re-offending.

Notwithstanding these results, future research is needed to refine the CASA. The development of a new algorithm, which incorporates the results from the SDS and the MAST, will need to be formally tested to determine whether their inclusion contributes to the overall accuracy of the CASA. National implementation of the CASA later this year will allow for larger scale research involving the replication of these results and the linking of the CASA results with other indicators to examine the determinants of post-release success. ■

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Re-profiling the drug offender population in Canadian federal corrections

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Research Branch, Correctional Service of Canada

This article replicates a 2000 comparison between drug offenders serving sentences in federal corrections for trafficking, importation, cultivation (including production) and/or possession offences by institutional and conditional release status, trends in admissions and releases, criminal histories, and identified needs at admission as well as on conditional release. Additional comparisons are made between the drug offender groupings and non-drug offenders on type of offence and amount of time served in custody.

Comprehensive information for 2005 was obtained for re-profiling the federal drug offender population[2] through the Correctional Service of Canada's Offender Management System, Offender Intake Assessment process,[3] and Community Intervention Scale.[4]

National and regional distribution

A review of the Correctional Service of Canada's Offender Management System (OMS) on December 31, 2005, identified 5,588 drug offenders under federal jurisdiction, representing about one quarter (26%) of the total federal offender population. Breaking this down, 2,360 offenders among the total federal offender population (or 11%) were serving sentences for drug trafficking, 493 (or 2%) for importation, 286 (or 2%) for cultivation, and 3,826 (or 18%) for possession of illicit drugs. Note that we included possession of narcotics (or other illicit substances) for the purpose of trafficking with drug trafficking. Note also that an offender may be serving a sentence for more than one drug offence.

The Service's Quebec region accounts for the most drug offenders, being responsible for slightly more than one third of the drug offender population. Only in the Quebec region did drug offenders represent more of the federal offender population than was the case nationally.

Institutional population (stock)

The end-of-2005 review also determined that there were 2,654 drug offenders in federal institutions, representing 22.6% of the overall institutional population. More specifically, 1,053 offenders among the overall institutional population (or 9%) were serving sentences for drug trafficking, 133 (or 1.1%) for importation, 158 (or 1.4%) for cultivation/manufacturing, and 1,991 (or 17%) for possession of illicit drugs. Again, some offenders might be represented in more than one drug offence category.

Slightly more than one quarter of federally incarcerated drug offenders were held in maximum-security institutions, about one half were in medium-security institutions and the rest were in minimum-security institutions.

Conditional release population (stock)

This review determined that there were 2,934 drug offenders on conditional release, representing 30.5% of federal offenders on conditional release. Specifically, 1,307 offenders among the conditional release population (or 13.6%) were serving sentences for drug trafficking, 360 (or 3.7%) for importation, 228 (or 2.4%) for cultivation, and 1,835 (or 19.1%) for possession of illicit drugs.

About one half of drug offenders were on full parole, one seventh on day parole and one third on statutory release.

Drug offender population trend

The federal drug offender population has continued to grow – particularly in the conditional release population. Over a 10-year period (December, 31, 1995, to December 31, 2005), the total drug offender population has increased by 5.2%. The drug offender population in institutions has increased by nearly 3%, and the drug offender population under community supervision has increased by 8% (see Table 1).

Drug offender admissions (flow)

The absolute number of drug offenders in federal institutions declined very slightly, by 0.3%, over the 2005 calendar year (see Table 2). The Quebec region experienced a slight decrease in the absolute number of drug offenders (-1.3%). The Atlantic, Ontario, Prairie and Pacific regions showed increased numbers of drug offenders in federal custody (+4.8%, +0.3%, +1.3% and +9.2%, respectively).

Table 1

National distribution of drug offenders

	End of 1995	End of 2000	End of 2005	10-year growth	10-year % change
Institutional	2,590	2,548	2,654	+64	+2.5
Community	2,720	3,231	2,934	+214	+7.9
Total	5,310	5,779	5,588	+278	+5.2

Table 2

Regional distribution of the federal drug offender institutional population and admissions (2004-2005)

Region	Institutional population 2004 [stock]	Admissions 2005 [flow]	Institutional population 2005 [stock]	Flow-to-stock ratio	Growth %
Atlantic	252	261	264	1 : 1.01	+4.8
Quebec	991	666	978	1 : 1.47	-1.3
Ontario	559	571	561	1 : 0.98	+0.3
Prairie	559	613	566	1 : 0.89	+1.3
Pacific	261	219	285	1 : 1.30	+9.2
Total	2,662	2,330	2,654	1 : 1.14	-0.3
	1999 *2,574*	*2000* *2,324*	*2000* *2,548*	*2000* *1 : 1.19*	*1999-2000* *-.01*

When you examine "flow-to-stock ratios" (the institutional population divided by the number of admissions), you find that, for every admission during 2005, at year-end there were 1.14 drug offenders in federal custody. Moreover, the Quebec and Pacific regions retained a greater number of drug offenders in federal custody relative to the other regions. The Prairie region retained the least number of drug offenders relative to the other regions.

Drug offender releases (flow)

The number of drug offenders supervised under some form of conditional release increased by 1.4% over the 2005 calendar year (see Table 3). Note that any offender who was at the end of their sentence was removed from the release figures.

When you examine "flow-to-stock ratios" (the conditional release population divided by the number of releases), you find that, for every release during 2005, at year-end there were 1.14 drug offenders under community supervision. Interestingly, this is exactly the same figure we found for the custodial population. Regionally, in 2005, the Atlantic region experienced the most growth in the absolute number of drug offenders under community supervision, with an increase of 28 cases. An examination of the 2005 regional flow-to-stock ratios, however, reveals that the Ontario and Pacific regions experienced the lowest retention of drug offenders under community supervision relative to the number of community supervision releases.

Overlap with other major offence categories

To examine overlap with three major offence categories – homicide, sex offences and robbery – across the four drug-offender groupings, we separated the end-of-December 2005 institutional (stock) and conditional release (stock) populations (see Table 4).

We can see from Table 4 that drug offenders in federal custody who were serving sentences for drug trafficking and possession were also likely to be serving sentences for other offences, particularly robbery.

Table 3

Regional distribution of the federal drug offender conditional release population and releases (2004-2005)

Region	Conditional release population 2004 [stock]	Releases 2005 [flow]	Conditional release population 2005 [stock]	Flow-to-stock ratio	Growth %
Atlantic	270	274	298	1 : 1.09	+10.4
Quebec	931	811	961	1 : 1.18	-0.32
Ontario	728	573	722	1 : 1.26	-0.80
Prairie	629	661	629	1 : 0.95	0.0
Pacific	336	260	324	1 : 1.25	-3.6
Total	2,894	2,579	2,934	1 : 1.14	+1.4
	1999 *3,185*	*2000* *2,556*	*2000* *3,231*	*2000* *1 : 1.26*	*1999-2000* *+1.4*

Table 4

Distribution of overlap with other major offence categories

Population/Offence	Trafficking	Importation	Cultivation	Possession
Institutional	**9.2% (1,053)**	**1.2% (133)**	**1.4% (158)**	**17.3% (1,991)**
Homicide	11.6% (122)	1.5% (2)	8.9% (14)	10.0% (199)
Sex offence	6.5% (75)	0.9% (0)	3.7% (9)	8.8% (135)
Robbery	33.9% (372)	8.0% (13)	23.2% (35)	46.9% (817)
Drug:				
Trafficking	-	19.5% (26)	39.2% (62)	25.8% (513)
Importation	2.7% (26)	-	2.5% (4)	1.6% (32)
Cultivation	5.9% (62)	3.8% (4)	-	4.9% (98)
Possession	48.7% (513)	24.1% (32)	62.0% (98)	-
Conditional release	**13.3% (1,307)**	**3.7% (360)**	**2.3% (228)**	**11.2% (1,099)**
Homicide	5.7% (75)	0.03% (1)	3.0% (7)	9.0% (99)
Sex	2.2% (29)	0.03% (1)	1.8% (4)	5.2% (57)
Robbery	14.9% (195)	3.3% (12)	11.9% (27)	36.9% (401)
Drug:				
Trafficking	-	17.5% (63)	30.2% (69)	47.9% (526)
Importation	4.8% (63)	-	1.8% (4)	4.5% (49)
Cultivation	5.3% (69)	1.1% (4)	-	13.0% (143)
Possession	40.2% (526)	13.1% (49)	62.7% (143)	-

Time served

The average time served (at the end of 2005) for drug offenders in federal custody was about 2.2 years, ranging from .01 to 36 years. (Cases whose conditional release was revoked and who therefore had to serve the remainder of their sentence in custody were removed from the analyses.) On conditional release, drug offenders had accumulated, on average, 3.9 years of time served (total of time spent incarcerated as well as time spent on conditional release), ranging from .1 to 35 years.

Not surprisingly, the average amount of time served for drug offenders across the various groupings (see Table 5) was found to be substantially shorter than that of non-drug offenders (e.g., homicide, sex, robbery), in institutions and on conditional release.

Table 5

Average time served (years) across drug and non-drug offender groupings

Population	Trafficking	Importation	Cultivation	Possession	Non-drug
Institutional	2.2 (.03 to 33)	1.1 (.07 to 4)	1.2 (.06 to 10)	2.0 (.01 to 36)	4.2 (.01 to 45)
Conditional release	4.9 (0.2 to 35)	5.0 (0.2 to 34)	2.0 (0.4 to 22)	2.9 (0.1 to 34)	8.6 (0.2 to 65)

Profiling men and women drug offenders

The Correctional Service of Canada's Offender Intake Assessment (OIA) process collects and stores information on every federal offender's criminal and mental health background, social situation and education, factors relevant to determining criminal risk (such as number/variety of convictions and previous exposure/response to youth and adult corrections) and factors relevant to identifying offender needs (such as employment history, family background, criminal associations, addictions and attitudes). While the results help determine what type of institution an offender will be placed in and the content of his or her correctional plan, we can also use this information in aggregate form to get a comprehensive profile of the federal offender population by looking at a distribution of selected *criminal history* and *case need* variables.

In November 1994, the OIA process was implemented Service-wide. Six years later, in our first profile of the drug offender population, we extracted case-specific information on available OIAs contained in OMS. In this, our newly updated profile, we focused on men and women offenders who had full OIAs and were under federal supervision on December 31, 2005.

Criminal history

As mentioned, the OIA process collects extensive information on each federal offender's criminal history at the time of admission to federal custody. In Table 6, we present comparative statistics on selected criminal history variables for federally sentenced men and women offenders across four drug-offender groupings.

With respect to drug trafficking offenders, there were statistically meaningful differences between men and women offenders on each of the selected young- and adult-offender-history variables. As a group, men offenders serving sentences for drug trafficking had more extensive criminal history backgrounds than their women counterparts.

Among drug importation offenders, there were no statistically meaningful differences between men and women offenders at admission in their young offender histories. Men offenders were, however, more likely than women offenders to have an adult offender history.

While there was a negligible number of women offenders for whom a drug cultivation/manufacturing offence was recorded, the majority of men in this category had extensive previous adult criminal histories.

Men and women drug offenders serving sentences for drug possession were found to have had previous young offender histories and extensive previous adult criminal histories. These results were more pronounced among men offenders.

Identified needs at admission

Earlier, we noted that the Service has an automated means of collecting information on offenders' criminogenic needs via the OIA process. This information is organized into seven need domains with a rating determined on the offender's level of need in each of the seven domains (see Table 7) as well as an overall need level reflecting the offender's situation at the time of admission to federal custody. OMS currently contains the identified need levels gathered since implementation of the OIA *Case Needs Identification and Analysis* (now known as the Dynamic Factors Identification and Analysis). This information can be retrieved at any time to provide caseload snapshots.

Among drug trafficking offenders, there were statistically meaningful differences between men and women offenders at admission in the areas of employment, marital/family relations, associates and attitude. Among drug importation offenders, there were statistically meaningful differences between men and women offenders at admission in every need area except employment (see Table 7). More specifically, men drug-trafficking and importation offenders were more likely than their

Table 6

Criminal histories across drug offender groupings

Variable	Trafficking		Importation		Cultivation		Possession	
	Men (1,835)	Women (115)	Men (330)	Women (82)	Men (347)	Women (3)	Men (3,163)	Women (141)
Young offender history								
Previous offences	39.1%	22.6%***	10.6%	11.0%ns	29.1%	-	49.0%	23.2%***
Community supervision	30.0%	18.3%***	7.1%	8.5%ns	19.9%	-	39.4%	19.3%***
Open custody	20.9%	9.6%***	4.0%	3.7%ns	13.3%	-	27.7%	10.7%***
Secure custody	22.8%	7.8%***	5.5%	4.9%ns	14.8%	-	29.6%	17.1%*
Adult offender history								
Previous offences	87.3%	73.9%***	52.5%	36.6%***	83.9%	-	88.2%	72.3%***
Community supervision	77.4%	61.7%***	38.4%	23.2%*	72.0%	-	79.1%	58.9%***
Provincial term(s)	70.7%	56.1%***	29.7%	17.1%*	65.6%	-	74.4%	49.3%***
Federal term(s)	45.5%	17.4%***	12.8%	1.2%***	33.4%	-	44.5%	12.8%***

Note: n's may vary slightly due to missing cases.
*Statistical significance men versus women: *** The difference is statistically significant $p < .001$; ** $p < .01$; * $p < .05$; ns = not significant.*

Table 7

Identified needs of drug offenders at admission

Variable	Trafficking		Importation		Cultivation		Possession	
	Men (2,054)	Women (117)	Men (369)	Women (85)	Men (362)	Women (1)	Men (3,532)	Women (97)
Employment	46.7%	70.9%***	41.5%	48.2%ns	33.2%	-	52.7%	67.8%***
Marital/Family	23.8%	40.2%***	9.8%	23.5%***	14.9%	-	27.9%	39.9%**
Associates	82.2%	73.5%*	80.0%	70.6%*	78.7%	-	76.3%	70.6%ns
Substance abuse	56.9%	64.1%ns	26.6%	14.1%*	47.0%	-	68.9%	65.7%ns
Community functioning	26.1%	25.6%ns	20.1%	36.5%**	11.6%	-	28.8%	21.0%*
Personal/Emotional	66.0%	65.0%ns	52.9%	45.9%***	49.2%	-	76.1%	66.4%**
Attitude	71.3%	45.3%***	61.0%	21.2%***	70.2%	-	69.2%	39.9%***

*Note: Statistical significance men versus women: *** The difference is statistically significant $p < .001$; ** $p < .01$; * $p < .05$; ns = not significant.*

women counterparts to be needy in the areas of associates and attitude, whereas women offenders were more likely to be needy in the areas of employment and marital/family relations.

There was only one woman offender for whom a drug cultivation/manufacturing offence was recorded. Men offenders in this category were most needy in the area of associates.

Although men and women drug offenders serving sentences for drug possession were found to be needy in most areas, women offenders were more likely to have been experiencing difficulties in the areas of employment and marital/family relations at the time of admission to federal custody. Men offenders were more likely to be needy in the areas of personal/emotional orientation and attitude.

Identified needs on conditional release

Since 1993, the Service has had an automated means of monitoring offenders' risk/needs levels in the community. Historically, OMS has contained the overall risk/need ratings and identified need levels gathered since implementation of the *Community Risk/Needs Management Scale* (now known as the Community Intervention Scale or Reintegration Potential Reassessment). This scale provides an overview of an offender's risk and need level at the time of their release into the community. This information can be retrieved at any time to

Table 8

Identified needs of drug offenders on conditional release

Variable	Trafficking		Importation		Cultivation		Possession	
	Men (1,028)	Women (55)	Men (211)	Women (57)	Men (177)	Women (1)	Men (1,411)	Women (67)
Employment	35.9%	58.2%***	29.4%	42.1%ns	27.1%	-	42.8%	53.7%ns
Marital/Family	18.0%	34.6%**	11.0%	24.6%**	12.9%	-	21.7%	36.9%**
Associates	58.5%	56.4%ns	50.0%	66.7%*	60.1%	-	62.1%	59.1% ns
Substance abuse	39.3%	49.1%ns	18.7%	14.0%ns	34.8%	-	54.0%	67.2%*
Community functioning	21.2%	20.0%ns	16.3%	38.6%***	10.7%	-	23.2%	21.5%ns
Personal/Emotional	47.7%	45.5%ns	41.4%	42.1%ns	40.7%	-	59.7%	53.7%ns
Attitude	40.6%	36.4%ns	36.4%	19.3%*	45.4%	-	47.4%	38.5%ns

*Note: Statistical significance men versus women: *** The difference is statistically significant p < .001; ** p < .01; * p < .05; ns = not significant.*

provide a snapshot of the conditional release population.

In Table 8, we see that, overall, drug trafficking offenders on conditional release were most needy in the areas of employment, associates, substance abuse and personal/emotional orientation. Among drug importation offenders, the major areas of difficulty were in employment, associates and personal/emotional orientation. Conditionally released offenders serving sentences for drug cultivation/manufacturing (men only; there was only one woman with this offence) were most needy in the areas of associates and attitude. Finally, offenders serving sentences for drug possession were found to be needy in most areas while on conditional release.

Among the various drug-offender groupings, there were statistically meaningful gender differences in some of the need areas. Overall, women drug-trafficking offenders on conditional release were significantly more likely than their male counterparts to have difficulties in employment and marital/family relations.

Women offenders serving sentences for importation were significantly more likely than their male counterparts to be needy in the areas of marital/family relations, associates and community functioning. Men offenders in this offence category were more likely to have difficulties in the area of attitude.

Finally, conditionally released women offenders serving sentences for drug possession were more likely than men offenders to be experiencing problems in the areas of marital/family relations and substance abuse.

Discussion

The capacity to produce meaningful, timely and accurate profiles of selected offender characteristics has served to raise awareness about the composition of the federal drug offender population.

In Canada, drug offenders comprise a substantial proportion of those under federal supervision. As a group, drug offenders in federal corrections are likely to have been convicted of another serious offence (such as robbery), have had previous involvement with the criminal justice system as a youth and/or adult, and have some unique criminogenic needs (e.g., employment, negative peer attachments).

Such findings point to the need for offering specialized programs and services to drug offenders. Moreover, careful attention should be paid to these individuals while in custody and during the reintegration process. ■

[1] 340 Laurier Avenue West, Ottawa, Ontario K1A 0P9.

[2] Motiuk, L. L. & Vuong, B. (2001). Profiling the drug offender population in Canadian federal corrections. *Forum on Corrections Research*, 13(3), 25-29.

[3] Motiuk, L. L. (1997). Classification for correctional programming: The Offender Intake Assessment (OIA) process. *Forum on Corrections Research*, 9(1), 18-22.

[4] Motiuk, L. L. (1997). The Community Risk/Needs Management Scale: An effective supervision tool. *Forum on Corrections Research*, 9(1), 8-12.

Intensive Support Units for federal offenders with substance abuse problems: An impact analysis[1]

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Approximately 80% of offenders admitted to federal penitentiaries are identified as having a substance abuse problem that is associated with their criminal behaviour.[3] To address this challenge, the Correctional Service of Canada (CSC) created specialized Intensive Support Units (ISUs). These units were designed to provide offenders with: 1) a supportive environment using specially trained personnel and 2) a reduced presence of drugs and alcohol through increased searching and drug testing.[4]

Offenders can volunteer to live on an ISU to more effectively address their drug and alcohol problems. ISUs were also designed for offenders who do not have a substance abuse problem but who are seeking an environment that supports them in their drug-free lifestyle. ISU residency offers no special programs or privileges, and offenders must sign a contract agreeing to remain drug-free, abide by the rules of the units and accept higher rates of searching and drug testing. Offenders living in the ISU continue to participate in regular institutional activities and either have been, or currently are, involved in substance-abuse treatment programs.[5]

This study looked at the impact of ISUs in many areas, including the presence of alcohol and drugs on the units, the institutional behaviour and release experience of ISU participants, and the perceptions of ISU staff and offenders.

The study

The study sample included 246 male offenders who were admitted to an ISU over a period of 11 months (September 2000 to July 2001) and who agreed to participate in this study. (Of 309 ISU admissions during this period, 80% agreed to participate.) The five ISU pilot sites were located in each of CSC's five regions: two in minimum-security institutions (Westmorland and Drumheller Minimum-Security Unit) and three in medium-security institutions (Leclerc, Joyceville and Mission).

Offenders completed a test battery of assessments at admission to, and discharge from, the unit to determine their perceptions about the program, their understanding of substance abuse, and the issues surrounding their drug and alcohol problems. Changes in behaviour were measured using a monthly behaviour checklist, information on institutional misconduct charges, search and seizure data and results of drug testing. Offenders were followed after the study period for between 8 and 24 months to determine the type of release they received and the amount of time they spent in the community. Follow-up outcomes were measured using time to release, type of release, and whether they were returned to custody. Appropriate comparison groups were used to evaluate the results.

Results

Most offenders in the ISUs (80%) had a substance abuse problem linked to their criminal behaviour. ISU offenders tended to be younger, serving shorter sentences (fewer serving life sentences), less likely to be serving a sentence for a violent offence, and rated as lower risk on static factors (criminal history) than other offenders in minimum- and medium-security institutions. Aboriginal offenders accounted for 12% of ISU participants but represented 16% of the total offender population, indicating that they were under-represented in the ISU population.

One of the ISU objectives is to reduce the presence of drugs and alcohol on the units. This was accomplished via a higher level of searching (as compared to other units in the institutions). As shown in Figure 1, with the exception of month 2, the rate of individual cell and personal searching in the ISU was higher than for non-ISU participants over the 11 months of the study. On average, an offender had either his cell or person searched 1.6 times per month in the ISU compared to 1.1 in the remainder of the prison.

Even with the higher rate of individual cell and personal searches in the ISUs, the rate of seizure of substance-related contraband was lower for the ISUs during the 11 months of the study than for the non-ISUs. The rates of seizures were calculated as the number of seizures divided by the number of offenders in the unit for that month. The results suggest that there were fewer drugs and alcohol in the ISUs. In fact, in 7 of the 11 months under study, no substance-related

contraband was found during individual cell and personal searches in the ISU. Figure 2 presents the rate of substance-related contraband seizures over the 11-month period.

Further support of the efficacy of the ISUs in reducing the presence of alcohol and drugs is found in random-urinalysis data and in offender and staff reports. Each month, 5% of the inmate population is selected for random urinalysis testing to detect drug use. Many of the offenders in the ISU had been tested through the random urinalysis program so it was possible to obtain their results to determine what effect the ISU had on their drug use behaviour. Random drug-testing results indicated a decline in drug use detection from 15% before admission to an ISU to 3% after admission.

Figure 1

Rate of individual cell and personal searches by unit type

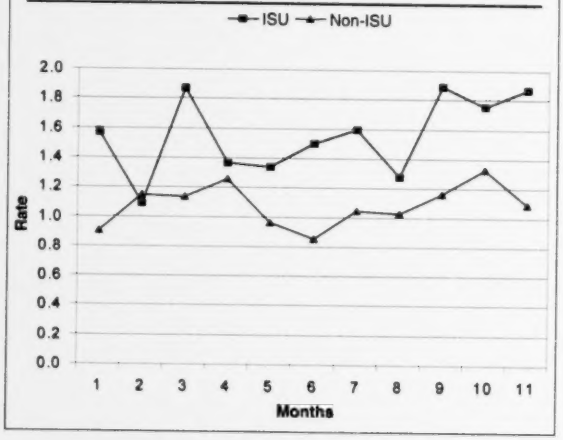
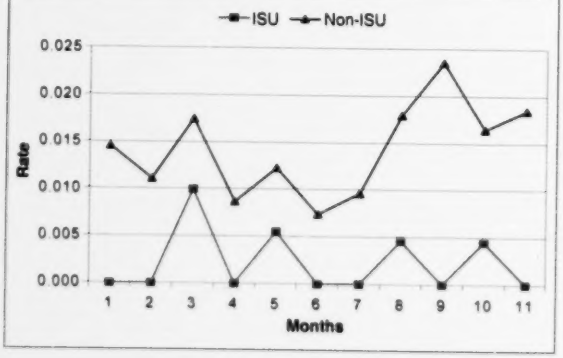


Figure 2

Rate of substance-related contraband seizures from individual cell and personal searches by unit type



Results from questionnaires given to both staff and offenders also indicated that drugs and alcohol were less available in the ISUs than in other parts of the institutions. Staff felt that both increased interdiction activities and increased offender motivation contributed to the reduced availability of drugs and alcohol on the ISUs.

In addition to less drug use being detected following admission to the ISU, results of analyses on institutional behaviour indicated a lower rate of misconducts, both minor and major, in the ISUs in relation to a comparison group.

Moreover, participation in the ISU resulted in a higher rate of discretionary release (day parole, full parole). Overall, 62% of ISU participants, compared to 46% of a matched comparison group, received a discretionary release. This represents a 34% higher rate of discretionary release for the ISU participants. ISU participants were also less likely to be returned to custody after release than offenders in the matched comparison group (25% versus 39%).

A survival analysis, presented in Figure 3, shows clear differences in the rates of return to custody across three groups: 1) those who were voluntarily discharged from the ISUs, 2) those who were involuntarily discharged, i.e., those who were removed from the unit for non-compliance with the contract, and 3) a matched comparison group. This analysis found that the ISU participants who were voluntarily discharged remained in the community the longest and at the highest rate.

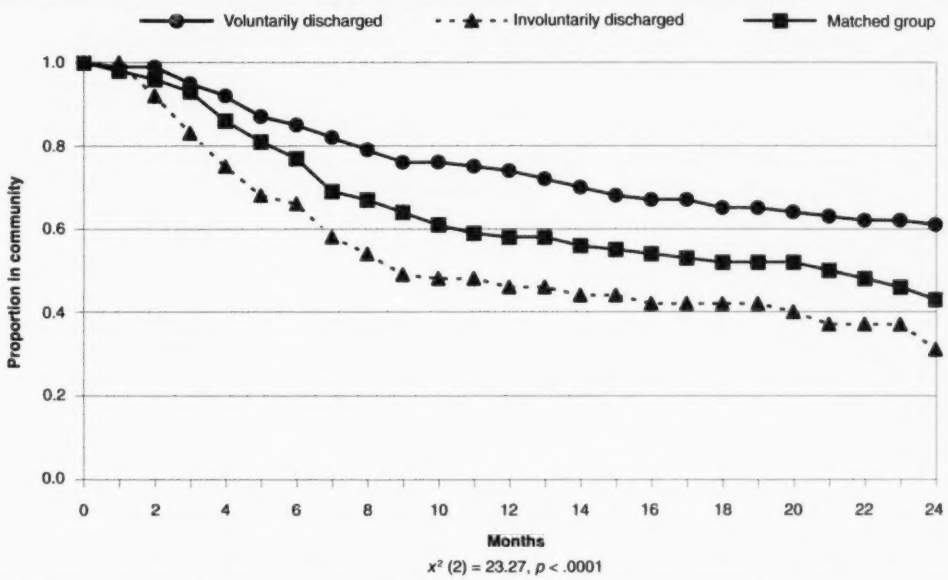
For both the matched comparison group and the involuntarily discharged group, the curve is steeper in the first nine months after release, indicating a higher rate of return to custody when compared to the ISU voluntarily discharged group.

Potential cost savings of $8000 per ISU participant were calculated based on the decreased incarceration time resulting from earlier release (via discretionary release) and the reduced likelihood of readmission.

Results from questionnaires measuring perceptions of the ISUs indicated that the supportive environment available in the ISUs helped offenders address their substance abuse problem. This environment was created by a number of factors, including the professional orientation of ISU staff (more empathetic, rehabilitation-oriented and satisfied with their work) and the use of interdiction activities that reduced the presence of drugs and alcohol.

Figure 3

Survival analysis curve for a two-year follow-up of readmission



x^2 (2) = 23.27, $p < .0001$

Results of questionnaire data indicate that neither staff nor offenders perceived the ISUs as having a negative impact on the rest of the institution.

Discussion

Overall the study indicates that the ISUs had a positive impact on the institutional and release behaviour of offenders. Those offenders who were voluntarily discharged from the units showed the greatest benefits. The analysis of cost savings also indicates a positive economic effect for the Correctional Service of Canada. The results suggest that ISUs should be considered for use on a wider basis. In fact, early results from the study encouraged the Correctional Service of Canada to implement ISUs in all federal penitentiaries.

This research pointed to a number of themes that should be critical to the implementation of the ISU concept. While believed to be important at the outset of the ISU project, their importance is now supported by evidence. Some of these themes include:

1. Creation of a supportive environment that meets the needs of the offenders;
2. Well-trained staff who can encourage and support behavioural change;
3. Interdiction activities that ensure a drug- and alcohol-free environment; and
4. Continued access to programming and work opportunities for offenders in the ISU.

The benefits that both staff and offenders anticipated and achieved from the ISUs suggest that there is a great deal of potential in the concept. Further development of the intervention parameters, however, will contribute to consistent outcomes. Areas for development include the definition of requirements for creating and maintaining the supportive environment, the level of staff training required, the appropriate level of drug interdiction activities, and continued access to programming and work opportunities.

The pilot sites were all highly motivated to demonstrate the effectiveness of the concept, and there is a need to determine if the benefits identified in this study can be replicated following national ISU implementation. ■

[1] The full report of the study is available from the Research Branch, Correctional Service Canada: Grant, B.A., Varis, D.D., & Lefebvre, D. (2005). *Intensive Support Units (ISU) for federal offenders with substance abuse problems: An impact analysis.* Research Report R – 151. Ottawa, ON: Correctional Service Canada.

[2] 23 Brook Street, Montague, Prince Edward Island C0A 1R0.

[3] Grant, B.A., Kunic, D., MacPherson, P., McKeown, C., & Hansen, E. (2003). *The High Intensity Substance Abuse Program (HISAP): Results from the pilot programs.* Research Report R-140. Ottawa, ON: Correctional Service Canada.

[4] Correctional Service Canada. (2000). *CSC Intensive Support Units - Backgrounder.* Ottawa, ON: Correctional Service Canada.

[5] Ibid.

Random urinalysis testing in federal corrections

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Reports on offender drug use from correctional jurisdictions worldwide have shown that the issue of drug use in institutions is not unique to the Correctional Service of Canada (CSC). CSC has in place a program of regular urinalysis to test offenders for drug use inside the institutions as well as while on conditional release in the community.

This article presents the findings of an analysis of CSC's random urinalysis program in federal institutions, looking at trends over time in the proportion of tests that come back positive for drug use, refusal rates and types of drugs found as well as differences in results by gender, region and security level.

Urinalysis in federal institutions can be requested for several reasons. Offenders can be asked to provide a sample when there are reasonable grounds to suspect drug use, as a condition of participation in a program or activity involving community contact, and as part of a condition of participation in substance-abuse treatment programs.

Offenders are also required to provide a urine sample for testing if their name has been chosen for participation in the random testing program. Random urinalysis is conducted among incarcerated offenders, and the policy and guidelines that govern its use are outlined in the *Corrections and Conditional Release Act* (CCRA) and the *Corrections and Conditional Release Regulations* (CCRR).[2] The goals of random urinalysis, as described in the CSC guidelines on urinalysis testing under random selection, are to "...ensure the security of the penitentiary and the safety of persons by deterring the use of and trafficking in intoxicants in the penitentiary."[3]

Although urinalysis is a well-established technology, it is not without limitations. Results of urine tests must be interpreted with caution due to the range of possible factors that could influence results. Technical challenges in the interpretation of results include variability in clearance rates of drugs of abuse, differences in individual physiology, and cross-reactivity in urinalysis screening procedures. In addition, there are operational factors such as non-random patterns in sample collection that could potentially influence the accuracy of the results. These can pose serious challenges to effective implementation of a program of random urine testing.[4]

Random urinalysis in institutions

For this study, all institutional random-urinalysis sample records in the Offender Management System (OMS) from January 1996 to December 2004 were examined. OMS is an administrative database used by CSC to record information relating to every offender in custody and on conditional release in the community. In total 58,873 random samples were requested during the period of study.

Random urinalysis represents a significant proportion of all urinalysis conducted in institutions, representing 45% of all institutional testing done in 1997 and increasing significantly

Table 1

Trends in urinalysis requests in Canadian federal institutions

Reason for testing	1996	1997	1998	2002	2003[5]	2004
Random	42%	45%	44%	52%	63%	64%***
	(6778)	(7096)	(6018)	(6565)	(6524)	(6476)
All other testing[†]	58%	55%	56%	48%	37%	36%
	(9322)	(8507)	(7652)	(5946)	(3792)	(3601)
Total	16,100	15,603	13,670	12,511	10,316	10,077

*** Z=-43.81, p< .0001 V=0.14

† All other institutional testing includes testing done on a voluntary basis, on reasonable grounds, as required as part of program participation and, prior to 2003, for the sanction of three consecutive negative tests following a positive test

to 64% of all institutional testing in 2004. As can be seen in Table 1, however, this is due not to an increase in the number of requests for random testing (which has remained rather stable over the years), but rather to a decrease in requests for other reasons. In 2004, testing for reasons other than the random program represented only 36% of all institutional testing.

Positive samples identified through the random urinalysis program are occasionally due to legitimate prescription drug use. Currently in OMS, there is no area to accurately record positive samples that are due to prescription drug use. One method to determine whether or not a positive urinalysis result is due to prescribed medication is to examine the action taken (or not taken) as a result of a positive test. Between 1996 and 2004, 9% of all positive random urinalysis requests (N=613) were recorded as positive with no follow-up action taken.

A sample of these cases was examined in more detail by accessing individual urinalysis records and manually extracting the data for each case. A total of 473 records between 1998 and 2003 were examined. During that time period, 54 positive samples with no follow-up action were recorded in women's institutions, with 61% found to be due to prescription drug use. In men's institutions, 419 samples were recorded as having no follow-up action taken, of which 39% were due to prescription drug use.

For those records where prescription drug use could not be verified, it also could not be eliminated as a reason for the positive test result. Either information was missing, or it was inaccessible to the researchers. In 3% of cases, a note was found on the file stating that the offender had been released or transferred.

Obviously, then, when interpreting urinalysis results from the random program, one cannot ignore the possibility of a positive test result being due to legitimate drug use. This is difficult to verify, however, due to the current lack of information on CSC administrative databases. Since only 32% of positive urinalysis test results could be attributed to prescription drug use during the study period, all positive tests where no follow-up action was taken were included in the analysis.

Positive results and refusal rates

In examining the national trends in urinalysis results, it was found that the rate of positive results has remained stable over time, resting at an average of 11% of all random urinalysis tests. As can be seen in Figure 1, the refusal rate has increased moderately, going from 9% in 1996 to 12% in 2004.

Positive rates have shown little change over time within regions or security levels. In 2004, the Atlantic region had a positive rate of 16%, Quebec had a positive rate of 13%, Ontario's positive rate was 11%, the Prairie region's was 7%, and the Pacific region's was 13%.

In maximum-security institutions, the proportion of requests for random urinalysis that returned a

Figure 1

Positive and refusal rates from random urinalysis in CSC institutions from 1996-2004

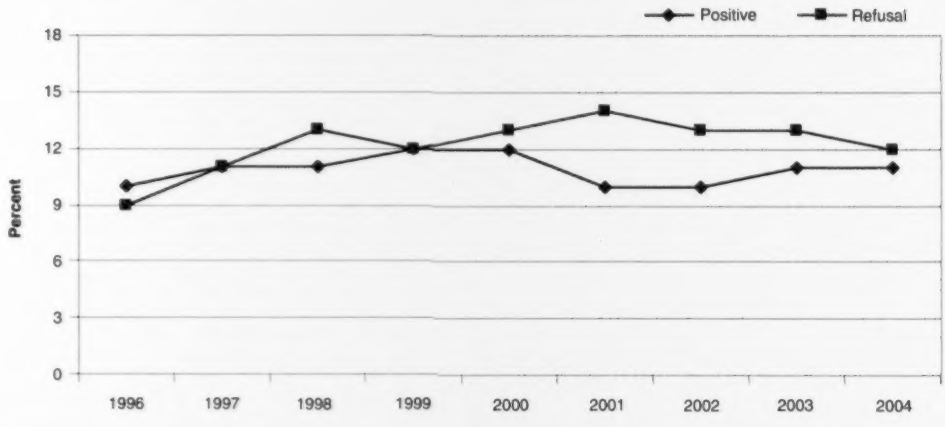
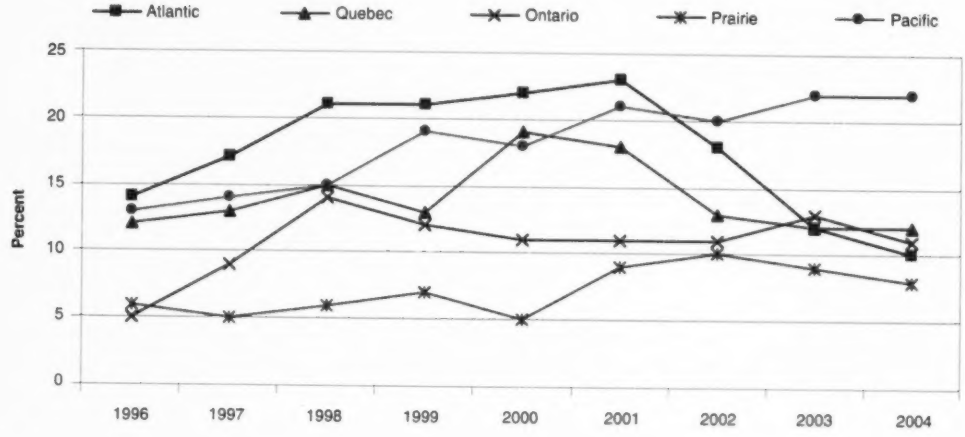


Figure 2

Regional refusal rate for random urinalysis in federal institutions from 1996-2004



positive result was 8%, in medium security it was 13%, in minimum security it was 8%, and in multilevel-security institutions, which represent primarily women's institutions, the positive rate was 4% in 2004.

Regional- and institutional-level analyses of refusal rates have shown some interesting trends. In the Atlantic region, refusal rates have decreased significantly since reaching a high of 23% in 2001, moving to 10% in 2004 (Figure 2). The Quebec region has also shown a decrease in refusals, going from 18% in 2001 to 12% in 2004. In contrast, refusals in the Pacific region have been steadily increasing since 1996, going from a low of 13% to 22% in 2004. This refusal rate was significantly higher than that of other regions in 2004.

Maximum-security institutions have shown a decrease in refusals since 2001, going from a high of 28% to 14% in 2004. Maximum-security institutions in the Atlantic region and in Quebec account for the majority of the decrease. Refusals in medium security have demonstrated a slight increasing trend, going from 9% in 1996 to 14% in 2004. Meanwhile, refusals in minimum-security and multilevel institutions have remained stable at, on average, 2% and 8% respectively.

Diluted samples

Offenders can dilute urine by consuming large amounts of liquid before they submit a urine sample. Dilution forces the kidneys to eliminate excess liquid rapidly, which results in reduced drug concentrations in urine. It is possible to reduce the concentration of a drug in urine below the established cut-off levels, resulting in a false-negative sample. In 1997, CSC introduced methods to detect diluted samples, and consequently they are identified at the laboratory and subjected to further testing at a lower cut-off for drugs.[6]

In both 2003 and 2004, 5% of samples requested from women's facilities were found to have been diluted and returned as negative for drug use. This represents a significant increase from earlier years, where diluted samples represented 1-2% of all random samples. Between 1997 and 2004, only 3 out of 49 diluted samples from women's facilities (6%) were found to contain evidence of drug use.

In men's facilities, the total percentage of diluted samples has remained stable over the years at between 1-2% of all samples. The percentage of positive diluted samples has also remained stable, at less than 1% of all random samples. Between 1997 and 2004, 181 samples from men's facilities were found positive for drug use after being detected through the dilution protocol, representing 22% of all diluted samples. Most (82%) were positive for THC, 7% for opiates, 2% for benzodiazepines, and 4% for cocaine.

Drug types

The proportion of different types of drugs found in positive samples has not changed significantly over time. In 2004, THC was found in 82% of

positive samples, opiates in 14%, benzodiazepines in 6%, cocaine in 1% and amphetamines in 0.43%.

Although drug types found in positive samples have not changed significantly since 1996, one interesting trend was found. There has been an increase in opiate drugs detected in samples from maximum-security institutions in the Ontario region. More specifically, in the time period 1996-2001, in maximum-security institutions in the Ontario region, opiates were found in 12% of all positive random urinalysis tests. By 2002-2004, this had increased fourfold to an average of 44% of all positive random tests.

Gender

Some significant gender differences were noted in the types of drugs found. The data in Table 2 represent all data collected over the study period, from 1996 to 2004. Analysis showed that women were more likely to submit a positive sample for opiates and benzodiazepines, while men were more likely to submit samples positive for THC. It is possible, however, that these discrepancies are due to legitimate prescriptions.

Poly-drug detection

Occasionally samples were positive for more than one drug. The rate of poly-drug detection for women and men was approximately equal during the study period (8% and 7% respectively). Interestingly, samples that contained more than one drug were equally likely to be positive for THC as those positive for one drug. However, poly-drug samples were more likely to contain opiates, benzodiazepines and cocaine as compared with samples positive for a single drug (Figure 3). This would suggest that these drugs are more often used in combination with other drugs, while THC is equally likely to be used on its own or in combination with other drugs.

Conclusion

The results of the random drug testing program have shown that, nationally, the positive rate has remained stable while the refusal rate has shown a marginal increase since 1996. Regionally there have been significant changes in refusal rates, in particular in the Atlantic region (decrease), Quebec region (decrease) and Pacific region (increase).

Table 2

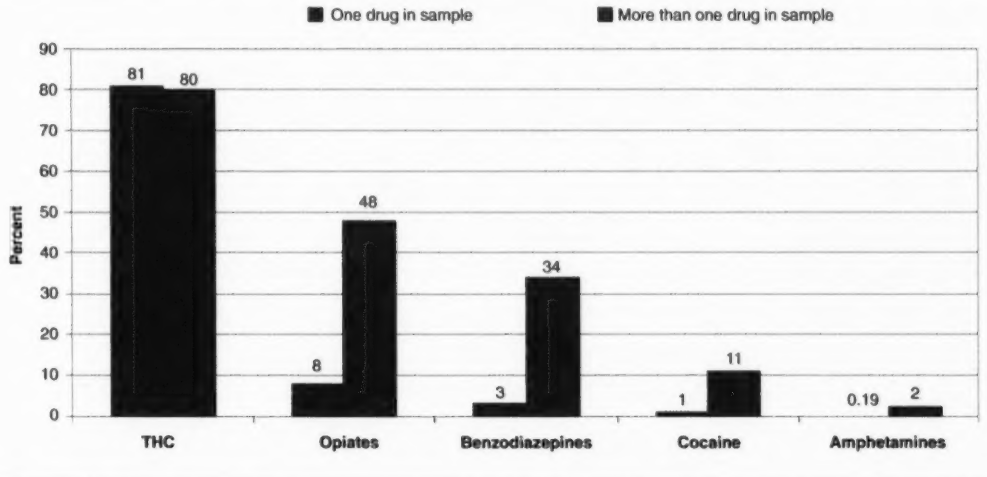
Gender differences in drug types found through random urinalysis

	Men (%)	Women (%)
THC	81	9
Opiates	12	26
Benzodiazepine	7	62
Cocaine	2	3
Amphetamines	0.31	1
Other drugs‡	4	13

‡Other drugs include methylphenidate, Prozac, LSD, PCP, alcohol, and pentazocine. Among women, 11% of samples in the "other drugs" category were positive for Prozac.

Figure 3

Drug types found in random urinalysis samples containing more than one drug compared to single drug samples from 1996-2004



The proportion of samples that were found to have been diluted has remained relatively stable since the introduction of the dilution protocol in 1997, but increased in 2003/2004 in women's facilities.

The types of drugs found in positive samples have not changed significantly over time, with one exception: in maximum-security institutions in Ontario region, opiates have, in recent years, been detected at a much higher rate than in previous years.

Drug types found in men's samples differ from those found in women's samples, which may be a reflection of patterns in prescribed drug use in women's facilities.

Finally, drugs other than THC are more likely to be used in combination with other drugs, as evidenced by the higher positive rate in poly-drug samples. ■

[1] 23 Brook Street, Montague, Prince Edward Island C0A 1R0.

[2] Government of Canada. (1992). *Corrections and Conditional Release Act*. Ottawa, ON: Government of Canada. Government of Canada. (1992). *Corrections and Conditional Release Regulations*. Ottawa, ON: Government of Canada.

[3] Correctional Service Canada. (1998). *CCRA review: Urinalysis testing program*. Ottawa, ON: Government of Canada.

[4] Wish, E.D., and Gropper, B.A. (1990). Drug testing by the criminal justice system: Methods, research and applications. In M. Tonry, and J.Q. Wilson (Eds.). *Drugs and Crime*. (pp. 321-391). Chicago, IL: University of Chicago Press.

[5] In 2003, the practice of requiring offenders who test positive to submit monthly tests until they had submitted three consecutive negative tests was discontinued following a court challenge. The judge ruled the practice to be "ultra vires" or outside the jurisdiction of the CCRA and CCRR.

[6] Fraser, A.D., & Zamecnik, J. (2003). Impact of lowering the screening and confirmation cutoff values for urine drug testing based on dilution indicators. *Therapeutic Drug Monitoring*, 25(6), 723-727.

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Developing national substance abuse programs in Canadian federal corrections

Carmen Long[1]
Offender Programs & Reintegration Branch, Correctional Service Canada

Approximately 80% of male offenders under the jurisdiction of the Correctional Service of Canada (CSC) are identified as having problems associated with substance use. This data is based on a general needs assessment that takes into account not only offenders who are appropriate candidates for substance abuse programs, but also offenders with a history of use or a current pattern of abuse not related to their criminal activity.

Accordingly, the Service addresses the spectrum of issues associated with substance use and abuse in a co-ordinated and comprehensive manner, as reflected in the drug strategy and organizational priorities. The Service's strategy is divided into the overarching categories of assessment, interdiction, intervention and ongoing research. Each plays an important role in forwarding the correctional agenda.

The focus here is on national substance abuse programming, in particular the development and current status of the National Substance Abuse Programs (NSAP). The NSAP model is a major advancement that carries on the Service's position as a world leader in effective correctional intervention. These programs and model are based on the current state of technology and, most significantly, will enhance the Service's ability to achieve our mandate.

It is critical for security and public safety that those offenders whose substance abuse is directly related to their criminal activities are provided with alternative skills and strategies to modify this pattern in order to decrease their rates of recidivism. Therefore, the target group for NSAP is those offenders whose substance abuse is a contributing factor to their offence pattern. Using this criterion, almost half of the male institutional offender population (48%) are appropriate candidates for participation in NSAP.

Not all offenders have the same severity of substance abuse problem. The largest sub-group are those with substantial to severe substance abuse problems; currently about one quarter of the total incarcerated population (24%) meet the criteria for high-intensity substance abuse intervention. About 14% of the total incarcerated population require a moderate-intensity program, and 10% meet the criteria for a low-intensity program. We find the largest proportion of offenders rated as high criminal risk among the offenders requiring high-intensity substance abuse programming versus those in the moderate- and low-intensity program categories.

The Service required a model comprehensive enough to meet the varying needs of these offenders and modernized programs that would address substance abuse and crime.

The need for a new model

Since the mid 1980s, the Correctional Service of Canada has provided access to effective substance abuse programs for offenders with substance abuse problems. This took the form of a moderate-intensity, institutional, pre-release program [Offender Substance Abuse Pre-release Program (OSAPP)] and a low-intensity, community-based program (Choices). High-intensity intervention was approximated through the combination of OSAPP and Choices plus maintenance, and later by the High Intensity Substance Abuse Program (HISAP) pilot.

Offenders with the most serious problems were most likely to constitute the drop-outs of the program . . . .

Institutional programming was generally provided pre-release, with the exception of the long-term offender program. The provision of maintenance, a critical component of the Service's programming strategy, was sporadic at best.

Program evaluation provided overall support for the efficacy of these programs; however, the data also highlighted shortfalls in the model. Offenders with the most serious problems were most likely to constitute the drop-outs of the program, and the impact of the intervention was thereby reduced.[2] Anecdotally, OSAPP graduates who also participated in Choices found the

repetitiveness frustrating. They did acknowledge the value of the maintenance component, however.

The evaluation results underscored the fact that it was participation in community aftercare that enhanced stability. Offenders who completed only the intensive phase of the Choices program had outcomes comparable to the matched comparison group, i.e., offenders without the low-intensity substance abuse program. There was a 56% reduction in reconvictions for those who participated in community aftercare.[3]

Operationally, there were also limitations. The evaluation found that, to maximize safety and security, early admission of offenders into the substance abuse programs was necessary. In the absence of this, the Service was relying primarily on interdiction measures while offenders continued their drug seeking and using behaviours without the intervention necessary to help them stop. Gaps in the ability to provide appropriately matched services, with an increasing number of offenders requiring high-intensity intervention, had an impact in the areas of management and reintegration.

In sum, the model needed to be re-worked to enhance the efficacy of our substance abuse interventions.

The development of new programs

The results of program evaluation and operational experience, in conjunction with the recommendations made during meetings of the international program accreditation panel, were used to shape the current substance-abuse program model. The core design team[4] worked with regional experts in developing the programs. Dr. Harvey Milkman, an international expert on treating substance abuse and crime, provided further consultation.

Upon completion of this large undertaking, the Service had three essentially new programs: NSAP-high, an 89-session, high-intensity program for offenders with the most serious substance abuse problems; NSAP-moderate, a 26-session program designed for offenders with a moderate need level; and NSAP-low, a 10-session, community-based, low-intensity intervention for offenders with low-level substance abuse problems.

The NSAP model requires that offenders participate in continuous-intake institutional and community maintenance at a frequency that is based on their risk and need. Offenders who participate in institutional programming also attend the pre-release booster no more than three months before their release into the community. The booster can be integrated into the existing maintenance or function as a stand-alone with the number of participants ranging from one to ten. It is designed to orient offenders toward the community and to augment their relapse prevention plans and strategies for high-risk situations in the community.

. . . in NSAP the link between substance abuse and crime is put into focus . . . .

The NSAP content is an evolution of the earlier programs' content. It was developed to help offenders modify their substance abuse and criminal behaviour. Unlike in the earlier substance abuse programs, in NSAP the link between substance abuse and crime is put into focus, and offenders analyze their patterns and develop a relapse and recidivism prevention plan. There are more skills taught and more time allotted to practise these skills. The strategies included in the program were selected to prepare the offenders to better manage those situations that initiate a relapse into crime and/or substance misuse and to enhance their lives in four key areas: better relationships, feeling good, satisfying life, and personal control and freedom.

The four program phases

Each intensity level of the program follows the same four phases. Phase I, "Deciding What I Would Like to Change," is devoted primarily to setting goals and enhancing motivation. Participants are taught basic self-management skills and strategies for managing cravings, and they start the process of self-monitoring. Self-monitoring plays a prominent role throughout the entire program. As the offenders are introduced to skills, they select the ones they are going to use to enhance their self regulation and then practise and monitor them regularly. They report back on their experiences using the skills, and the outcome, at the beginning of each program session.

Phase II, "Improving the Odds: Understanding and Learning How to Manage Risk," focuses on

the identification of risk situations and the cycle of substance abuse and crime. Offenders identify their internal and external triggers and also explore how these triggers build to result in problems. The escalation of difficulties is described using the traffic light analogy. Zamble and Quinsey's (1997) recidivism process[5] is used to demonstrate how poor responses to everyday stressors can result in a return to substance abuse and crime. Problem solving is introduced, and individuals start developing their relapse and recidivism prevention plans using the steps.

Phase III, "Learning the Tools for Change: Expanding my Options," is designed to provide participants with basic cognitive and behaviour skills to manage themselves differently. Skills are taught within the context of enhancing the four key life areas. For example, social skills are taught as a way to enhance better relationships and build support networks. Cognitive coping is one part of emotion management for feeling good.

In Phase IV, "Using the Skills and Planning for my Future," the primary objective is to provide offenders with an opportunity to select and formalize how they are going to use the skills and strategies introduced in the programs to manage their behaviour and prevent relapse (relapse prevention planning). Further goal-setting is undertaken in the areas of leisure, relationships, work/school, finances, health and well-being, and building community support.

Finally, participants evaluate their own progress during the program, including their competence with the skills selected for relapse prevention. This reinforces the importance of participants continuing to self-monitor and to use the skills they have learned to ultimately achieve their life-area goals and to decrease the likelihood of a return to substance abuse and crime.

Staff training

Staff training has changed considerably in this new model. Every facilitator must be trained to deliver the highest intensity level of the program. This is a positive step that ensures facilitators, regardless of operational site or intensity of program delivered, are fully aware of the content of each program.

In order to further equip facilitators, the development team created the facilitator's manual. It is a resource that provides basic information on understanding and managing group dynamics; addressing responsivity factors such as mental health, diversity and literacy; and the theory behind the skills and instructions to teach them.

Programs are less educational in nature and focus on skill development and practice.

Overview of changes

Overall, then, the major changes made to the Service's substance abuse programming model include the provision of all institutional substance abuse programs as early in the sentence as possible, cessation of the stacking of programs of varying intensity, and the addition of a release "booster" component and maintenance to be offered to all institutional substance-abuse program participants.

Programs are less educational in nature and focus on skill development and practice. Practically, this brings the delivery model closer in line with the principles of appropriate program matching. As well, it meets the requirement for the consistent provision of aftercare. Offenders are now provided with the ongoing structure and support for skill acquisition and rehearsal through the program and ongoing maintenance in the institution and community, as required.

The International Accreditation Panel responded very positively to the new substance abuse programs and model and accredited them. The members of the panel stated that the high-intensity program stands as a model for high-intensity treatment of drug abusing offenders. As well, the maintenance/booster phase was given special commendation. The panel considered the institutional maintenance to be innovative, and the continuity of care extending into the community as ambitiously setting a new standard within CSC.

Status of implementation of new programs

The NSAP model was fully implemented in 2004/05. The Service's ability to support the augmented model is as a result of a successful submission to Treasury Board that brought an annual increase to the existing substance abuse program budget of over 5 million dollars annually.

Program shifts such as this are immense undertakings. They require dedication and

commitment from everyone involved in the operational sites and regions across Canada. The speed with which the NSAP programs were made available to the field is due to the significant efforts of the regional substance-abuse program trainers and quality control co-ordinators. They were required to conduct numerous training events for all the new and existing program facilitators.

Their hard work has been well worth it, and operational sites have responded with an equal effort. The program facilitators and the offenders across Canada have responded enthusiastically to the modified programs. The 2005/06 fiscal year showed the highest level of enrolments in accredited substance abuse programs, as well as a significant increase in the delivery of high-intensity and maintenance programs.

Next steps

Although the NSAPs were assessed against, and deemed to have met, all the criteria for effective intervention, these programs are not static entities. The NSAP model will continue to be refined and enhanced. The delivery of NSAP is regularly monitored to assess implementation of the model and the use of funds. Regions receive reports regarding the delivery of the NSAP, pre-release booster and ongoing maintenance, including information on the appropriateness of referrals and analysis of rates of delivery against demand.

We are also fortunate to be receiving, on an almost daily basis, feedback from the users of the programs. Program facilitators and participants have an opportunity to describe what they liked best and least in the programs and what they would change, and to provide ratings on the program's components, delivery and effectiveness.

This information, combined with the results of the evaluation conducted by CSC's Research Branch, will be used to enhance future versions of NSAP. ■

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1 340 Laurier Avenue West, Ottawa, Ontario K1A 0P9.

2 T3 Associates. (1999). *An outcome evaluation of CSC substance abuse programs: OSAPP, ALTO, and Choices, Final report.* Ottawa, ON: Correctional Service of Canada.

3 Ibid.

4 Sylvie Blanchet, John Eno and Carmen Long.

5 Zamble, E. and Quinsey, V.L. (1997). *The criminal recidivism process.* Cambridge: Cambridge University Press.

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Development of an Aboriginal Offender Substance Abuse Program

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This article describes the development of a national Aboriginal Offender Substance Abuse Program (AOSAP). The AOSAP is in demonstration, involving both research and development activities and field testing in five institutional sites, one in each of the Correctional Service of Canada's five regions. The project will culminate with the AOSAP added to a host of culturally based programs being offered to Aboriginal offenders by the Correctional Service of Canada.

Recent studies report that Aboriginal offenders are over-represented in Canada's provincial and federal prisons, especially in the Western provinces. Census data from 2001 indicate that Aboriginal people represent 3.3% of the Canadian population,[4] but account for an estimated 18% of the federally incarcerated population.[5] Demographic trends, including a relatively young population and increasing urbanization, suggest that the number of Aboriginal admissions to federal institutions will continue to increase over the next few decades.[6]

Substance abuse is linked to increased rates of criminal offences, incarceration and recidivism in the general population, and this association holds true among Aboriginal peoples as well. As more than 90% of federally sentenced Aboriginal offenders have an identified substance abuse problem,[7] the Correctional Service of Canada (CSC) is developing a new national substance-abuse treatment program specific to that population: the Aboriginal Offender Substance Abuse Program (AOSAP). By providing a culturally appropriate program, CSC seeks to reduce the risk of relapse to substance abuse and re-offending among Aboriginal men in federal custody, in part through improved program completion rates. Aboriginal offenders who complete programming are more likely to be released under the auspices of Section 84 of the *Corrections and Conditional Release Act*.

Developing the program

Since the spring of 2003, the Addictions Research Centre (ARC, a division of the CSC Research Branch) has had lead responsibility for development of Aboriginal substance-abuse treatment programming. To develop AOSAP, the ARC has been working in partnership with the Aboriginal Initiatives Branch and the Reintegration Programs Branch (Aboriginal Programs unit) of CSC to design a culturally based program.

The new substance-abuse treatment program was developed during the spring and summer of 2004 for pilot testing and refining during a demonstration phase. The Aboriginal firm Ancestral Visions of Tyendinaga Mohawk Territory in Ontario, working with the Prairie region's Aboriginal Substance Abuse Program, provided CSC with a revised program curriculum that incorporates both contemporary approaches to substance abuse treatment and traditional Aboriginal teachings.

Five demonstration sites were identified for the first cycle of testing of the program: Mountain Institution (Pacific region), Stony Mountain Institution (Prairie region), Joyceville Institution (Ontario region), Cowansville Institution (Quebec region), and Dorchester Penitentiary/Westmorland Institution (Atlantic region). In the Pacific, Ontario and Quebec regions, the venue for the second cycle was moved respectively to Mission Institution, Kingston Penitentiary and Drummond Institution.

In September 2004, five Aboriginal correctional program officers and five institutional Elders, one from each region, participated in program training for the demonstration phase of this project. Training continues as changes are made to the manual and as new facilitators and Elders join the demonstration project.

The first cycle of the 16-week program was completed in the spring of 2005 in all of the regions with approximately 40 offenders participating. A second cycle began in May 2005 at two sites; the remaining three sites began their second cycle in the fall of 2005. A third, and final, cycle will begin in the fall of 2006.

Program characteristics

While under development, the demonstration AOSAP is co-facilitated by a program Elder and a facilitator and offered as a high-intensity program

for male Aboriginal offenders. Aboriginal men who require programming of moderate intensity may also be referred to this program as an alternative to the moderate-intensity National Substance Abuse Program.

The AOSAP responds to the needs of Aboriginal men (First Nations, Métis and Inuit) by taking a holistic approach, ensuring that the impact of addiction is examined through physical, mental, emotional and spiritual dimensions. Currently, the needs of Aboriginal women offenders in relation to substance abuse treatment are under review, and research on the AOSAP will be highly instructive as to future directions for the Aboriginal women offender population.

The specific objectives of the program are as follows:

- Awareness: develop awareness of linkages between substance abuse and criminal offending;
- Motivation: develop opportunities to engage and motivate participants in a positive change process;
- Skill enhancement: develop skill base to promote an alcohol-and-other-drug free lifestyle (physical, mental, emotional and spiritual); and
- Spiritual connection: introduce cultural activities as a means of healing.

The program consists of four modules:

Module I presents the foundation of culture, with specific emphasis on introducing participants to the program, the power of the circle of wellness, safety and self-care strategies, and those traditional values and goals that are fundamental to Aboriginal culture and healing.

Module II is an introduction to the impact of trauma and how substance abuse was, and still is, a means by which Aboriginal people tried/try to cope with its effects. Participants are introduced to the triggers associated with substance use and addictions. Issues of shame, anger and lateral violence are discussed in the context of behaviours borne out of the historical trauma and experiences of Aboriginal peoples. The final session of the module, *Telling our Story through Masks*, is a powerful exercise that allows offenders to safely reflect on their own experiences so that they can establish and maintain healthy responses to trauma symptoms.

Module III focuses on the history of substance abuse within Aboriginal communities, and its effects and impacts. This module can be described as core to understanding alcohol and other drug abuse and addictions. Woven throughout is a central theme of how devastating substance abuse and addiction can be to individuals, families and communities, but how changing this behaviour can result in the restoration of health, pride and culture.

Module IV is a presentation of relapse prevention and planning. Grounded in best practice addiction work, the module targets increasing an offender's understanding of managing risk as well as providing him with the necessary skills to manage future risk by employing relapse prevention strategies. The final activity in this module is entitled *Celebration*. It provides participants with an opportunity to reflect on their experience in the program and to celebrate their commitment, journey, teachings and new beginnings.

Research

The Research Branch at CSC national headquarters has been hosting annual research gatherings with Aboriginal Elders, agencies and community partners for several years now. This reflects CSC's on-going commitment to engage Aboriginal organizations and stakeholders in Aboriginal corrections, with the primary goal of contributing to safe and healthy communities.

Over the last five years, there has been increased research activity in CSC regarding Aboriginal offenders and the treatment programs offered to them. The main purpose of this research is to gain a better understanding of the needs of Aboriginal offenders and inform the development of the best programs possible. Ultimately, these research findings will go a long way toward ensuring that the Service meets its corporate objectives while meeting the needs of Aboriginal offenders in ways that contribute to a reduction in incarceration rates.

The AOSAP demonstration project incorporates a comprehensive research component to examine program effectiveness and provide necessary information for further refinement of the program. The Aboriginal community is directly involved in this research: program facilitators and Elders contribute to data collection, the Aboriginal Healing Foundation and Waseskun Healing Centre researchers conducted a process evaluation, and Aboriginal experts have formed a research advisory group to provide guidance to the research process.

In early February 2005, the Addictions Research Centre, in collaboration with CSC's Aboriginal Initiatives Branch and the Reintegration Programs Branch (Aboriginal Program unit), hosted an Elders' Consultation and AOSAP Research Advisory Group meeting in Abbotsford, B.C. The purpose of the meeting was to build respectful relationships with the Elders and experts, identify the critical issues to take into account, and obtain direction for research during the demonstration phase of AOSAP. The meeting served also to update the group on all Aboriginal correctional programs, seven in total, that have been developed over the last six years. The Elders who participated comprise the *Program Elder Advisors Committee*, as they are formally known, which has been providing guidance to the Reintegration Programs Branch for many years in the development and implementation of Aboriginal programs.

The AOSAP Research Advisory Group was formed specifically to guide research for the AOSAP during the demonstration phase, and includes the Elders who carry the Sacred Bundle for the project as well as representatives from CSC, the Aboriginal Healing Foundation, the Centre for Addiction and Mental Health, Inuit Tapiriit Kanatami, the National Crime Prevention Centre, Native Counselling Services of Alberta, Community Health Representatives of B.C., Waseskun Healing Centre, and Nechi Training, Research and Health Promotion Institute. The Elders and AOSAP research advisors provided invaluable advice and direction during this four-day gathering under the guidance of Dr. Joe Couture, Aboriginal Elder, CSC psychologist, and Chair of the Research Advisory Group. Participants guided the CSC team on cultural issues, brain-stormed about what research processes and measures would be best suited for an evaluation of this Aboriginal program, and discussed how best to refine the program.

The AOSAP Research Advisory Group continued its work into the fall of 2005, helping the research team deal with complex cultural issues and develop strategies for research during a three-day meeting at the Friendship Centre in Winnipeg. The Research Advisory Group will convene its third gathering in October 2006 at Waseskun Healing Centre in Quebec.

Several other important research activities related to the project include development of new culturally appropriate research tools and methods; preparation of a comprehensive report on the risks and needs of Aboriginal offenders in federal custody; a process evaluation of the AOSAP; a critical review of research evidence about culturally-based substance abuse treatment programs for Aboriginal peoples; and a final report on analyses of data collected during the demonstration phase.

Conclusion

The research and development activities associated with the new AOSAP, as well as the operational commitment to field testing, have been an enormous undertaking. There are several more steps in the process, however, each of which are intended to ensure the highest quality program possible. While revisions to the program manual were made over the winter of 2005 and completed in early summer 2006, the work is not complete. Plans continue for the next phases in AOSAP development, including the third and final cycle of demonstration in fall 2006 and the development of a strategy for national implementation.

As part of the overall project plan, it is also intended that the program be externally reviewed, prior to national implementation and separate from program accreditation. This will be the ultimate test to ensure that the program meets the standards required. ■

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Women Offender Substance Abuse Programming: Interim results

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In 2001, in response to continued high levels of substance abuse problems among federally sentenced women, the Correctional Service of Canada (CSC) initiated the development of new substance abuse programming for women offenders. Research from the field and from a panel of experts demonstrated the need for a multi-dimensional, gender-responsive model that incorporates both the intervention and the environment. The product of this research was programming that offers a continuum of matched interventions supporting the women, from admission to warrant expiry, to make healthy lifestyle choices.

In 2003, Women Offender Substance Abuse Programming (WOSAP) was implemented as a pilot with the two-year demonstration period ending in May 2005. Preliminary research from the first year has demonstrated strong completion rates, increases in participants' knowledge and skills, and positive participant satisfaction. A final outcome evaluation of WOSAP is currently underway.

WOSAP implementation

The Women Offender Substance Abuse Programming (WOSAP) was developed to address the substance abuse needs of all women offenders. WOSAP offers formal interventions in addition to focusing on building a supportive institutional community for the development of healthy, functional relationships.[2] Programming offers three modules: 1) Engagement and Education (E & E) - offered to all women in the institution regardless of identified substance abuse problem; 2) Intensive Therapeutic Treatment (ITT) - for offenders with moderate to high substance abuse needs; and 3) Relapse Prevention and Maintenance (RPM) - offered in both the institution and the community to address problematic behaviours related to crime, including substance abuse. In addition, community-building initiatives and a mutual support group specific to women with substance abuse needs provide an environment that supports healthy change.[3]

The first national training session for WOSAP was held in May 2003 with subsequent implementation in four women's federal institutions as well as Burnaby Correctional Centre for Women and Okimaw Ohci Healing Lodge. Since 2003, WOSAP has been introduced to 22 community sites, with two additional national training sessions. During implementation, program facilitators were supported by regular national teleconferences in addition to site visits and direct communication from national headquarters staff. Feedback collected from program participants and facilitators informed two sets of revisions to both the program manual and implementation guidelines, resulting in a standardized yet dynamic program responsive to the unique needs of each site.

Interim evaluation

The interim evaluation of the program focused on the first seven months of WOSAP's implementation, from June 1, 2003, to January 1, 2004.[4] Three study groups were compared: 1) an Engagement and Education (E & E) group consisting of 148 women offenders who participated in E & E only; 2) an Intensive Therapeutic Treatment (ITT) group comprised of 45 women; and 3) a comparison group, representing the general population and consisting of 269 women who were incarcerated in federal institutions on May 1, 2003, but who did not participate in WOSAP.[5]

Offender information was obtained from the Offender Management System. Measures of change resulting from participation in the program were gathered from pre- and post-test assessment material. Finally, self-reported information was collected from a semi-structured interview administered prior to participation in Intensive Therapeutic Treatment.

Interim results

The three study groups were similar in terms of age, race and marital status. Offenders in the E & E, ITT and comparison groups were, on average, 35, 36 and 37 years old, respectively. Almost half of the women in both modules were either married or had common-law status. Similar to the women offender population, the majority of women in both modules, two thirds,

were Caucasian. Aboriginal women accounted for between 23% (E & E) and 31% (ITT) of program participants, similar to the proportion of Aboriginal women in the institutional population (29%).

Severity-of-substance-abuse measures indicated that the appropriate women were assigned to, and participated in, the ITT module with 95% assessed as having a moderate to severe substance abuse problem. Overall, more women were assessed as having a drug problem (80%) than an alcohol problem (50%). Results also demonstrated that most women offenders required treatment for their substance abuse problem, with 75% of the E & E group (keeping in mind that E & E is offered to all women offenders) and 71% of the comparison group (untreated women offenders) assessed as having a moderate to severe problem.

There was total agreement between self-reported and assessed severity of substance abuse for ITT participants who participated in the semi-structured interview, suggesting that the women had an accurate perception of their own problem with drugs and alcohol. A high percentage of these same participants reported problems with the most addictive drugs: cocaine (68%), opiates (56%), crack (51%) or heroin (46%). In contrast, while most women reported using marijuana or hashish over their lifetimes, only 16% indicated that their use of this substance resulted in addiction problems.

Substance use started at an early age for many of these women, and was initiated by the use of alcohol. Less time elapsed for drug use to become regular (2.8 years), however, as compared to regular alcohol use (4.6 years).

High completion rates for E & E (93%) indicate that almost all women were able to complete the module, providing them with an opportunity to learn about the impact of drug and alcohol use in their lives and in the lives of women around them. The more seriously addicted women then proceeded to the ITT module, suggesting that the program is attracting the participants for which it was intended and, with an 82% completion rate, it demonstrated a strong ability to retain these women. A very high degree of participant satisfaction with all aspects measured provides additional support for the use of both modules (see Table 1).

Pre- and post-test assessment results indicate that the program had a positive impact on the women in several domains. Generally, in all of the areas evaluated in this study, changes in the positive

Table 1

Mean scores for the Participant Feedback Questionnaire (PFQ)

Subsections	E & E Mean score	ITT Mean score
Overall impression [a]	3.4	3.7
Program content and methods [a]	3.5	3.7
Program length [b]	2.9	3.3
Group experience [a]	3.6	3.7
Total number of cases	180	40

[a] Scores increase in degree of satisfaction from 1 to 4.
[b] Scores range from 1 (program perceived to be too short) to 5 (program perceived to be too long).

direction were detected. For E & E participants, women demonstrated an increase in knowledge of the impact of substance abuse in several life areas as measured by the Substance Abuse Knowledge Questionnaire[6] and the How Much Do They Matter Questionnaire[7] (see Table 2), although the increase for the latter scale was not statistically reliable. They also demonstrated an increase in motivation to change (see Table 3) as measured by the Readiness to Change Questionnaire.[8]

ITT participants had similar results, with additional increases in knowledge of the coping skills needed to prevent relapse and increases in self-efficacy and self-esteem, indicating that the program helped to build confidence to address substance abuse challenges. Assessment results are summarized in Table 4 for the following scales: Intensive Therapeutic Treatment Questionnaire,[9] Relapse Attitudes and Knowledge Questionnaire,[10] Coping Behaviours Inventory,[11] Rosenberg's Self-Esteem Scale,[12] and Alcohol/Drug Abstinence Self-Efficacy Scale.[13]

Relationships

The majority of ITT participants reported that substance use had had a negative impact on

Table 2

Pre- and post-test mean scores for E & E knowledge measures

Measures	Pre-test Mean score	Post-test Mean score
Substance Abuse Knowledge Questionnaire	63.8	66.5****
How Much Do They Matter Questionnaire	61.2	62.1
Total number of cases	189	176

Note. Desired change in pre-post test scores: Increase.
**** $p < .0001$

Table 3

Participants' stage of change for E & E and ITT

Stage	E & E Pre-test %	E & E Post-test %	ITT Pre-test %	ITT Post-test %
Precontemplation	2.0	2.1	2.3	0.0
Contemplation	2.6	1.0	2.3	0.0
Preparation	25.0	11.3	29.6	11.4
Action	14.7	19.0	20.4	14.3
Maintenance	55.8	66.9	45.4	74.3
Total number of cases	156	142	44	35

relationships with their family, friends, partners and children. Furthermore, many women seem to have had relationships with others who abuse substances, with a quarter of the women reporting that their partner was currently using substances and a further 69% having at least one family member with a substance abuse problem.

Table 4

Pre- and post-test mean scores for ITT measures

Measures	Pre-test Mean score	Post-test Mean score
ITT questionnaire subscales [a]		
Emotions	49.5	51.7
Spirituality	41.6	45.2**
Relationships	35.9	38.4*
Sexuality	37.2	40.1**
Self	36.1	39.8**
Relapse Attitudes and Knowledge Questionnaire [a]	80.3	86.8**
Coping Behaviour Inventory [b]	63.9	33.4****
Rosenberg's Self-Esteem Scale[a]	28.4	31.5*
Alcohol/Drug Abstinence Self-Efficacy Scale		
Temptation domain subscales [b]		
Negative affect	19.6	10.4****
Social/Positive	18.4	9.5****
Physical and other concerns	15.6	8.4****
Craving and urges	17.0	10.0****
Confidence domain subscales [a]		
Negative affect	11.0	18.3****
Social/Positive	11.4	19.2****
Physical and other concerns	12.3	19.6****
Craving and urges	11.4	18.8****
Total number of cases	45	35

[a] Desired change in all subscale pre-post test scores: Increase.
[b] Desired change in pre-post test scores: Decrease.
* $p < .05$; ** $p < .01$; **** $p < .0001$

These findings are consistent with current feminist theory which explains substance abuse within the context of women's relationships. Relational theory posits that women develop a sense of identity and achieve psychological health through mutually supportive relationships and through a sense of connection with others.[14] A lack of such relationships may translate into increased vulnerability to substance use. Women may also use substances as a means of connecting to substance-abusing partners.[15] The results from this study provide empirical evidence for the need to focus on developing and sustaining healthy relationships within the context of substance abuse treatment programming – a component which is woven throughout WOSAP's content and structure.

Trauma

There is longstanding consensus in the literature on the association between the experience of past trauma and substance abuse for women. In this study, all women who responded to the trauma interview reported having experienced trauma in their past. Furthermore, the majority of women who participated in ITT admitted to using substances to cope with their traumatic experiences. Reports of depression and anxiety, and using drugs and alcohol to cope with these emotional states, were also frequent.

WOSAP addresses the first stage of trauma recovery, creating safety, in which women are taught coping strategies to deal with negative emotions associated with their trauma. These study results suggest that the women may benefit from further trauma programming/group work (existent in some institutions) where they can progress to subsequent stages to process their trauma histories, make new and healthier connections, and ultimately sever the tie between their substance use and trauma.

Crime

The association between crime and substance use is also well documented and was replicated in this interim analysis. Almost all women offenders (91%) indicated that they were under the influence of drugs and/or alcohol at the time of their most recent offence. More women reported being under the influence of drugs than alcohol or a combination of both. Of the women reporting being under the influence, 72% indicated that they felt their involvement with drugs contributed to the commission of their crime(s). This percentage dropped to 46% for women who were under the influence of alcohol.

Conclusion

Before women can implement positive change in regards to their substance abuse, they need the support, knowledge, skills and motivation that will provide them with the foundation upon which to build change. The preliminary results from the WOSAP pilot indicate that women are making gains in these areas as a result of participating in the E & E and ITT modules. The next stage of evaluation will determine whether this foundation translates into sustained change in terms of a decrease in detected drug usage within the institution and reduced recidivism in the community. ■

[1] 23 Brook Street, Montague, Prince Edward Island C0A 1R0.

[2] For details regarding the background of WOSAP development, including research, policy and program design, refer to Hume, L. & Grant, B. (2001). *Substance abuse programming for women offenders: A proposed structure.* Research Report #R-120. Ottawa, ON: Correctional Service Canada.

[3] For details regarding program content, refer to Hume, L. (2004). A gender-specific substance abuse program for federally-sentenced women. *Forum on Corrections Research,* 16(1), 40-41.

[4] For complete details regarding the interim evaluation, see Grant, B.A., Furlong, A., Hume, L. & White, T. (in preparation). *The women offender substance abuse program: Interim evaluation.* Research Report. Ottawa, ON: Correctional Service Canada.

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